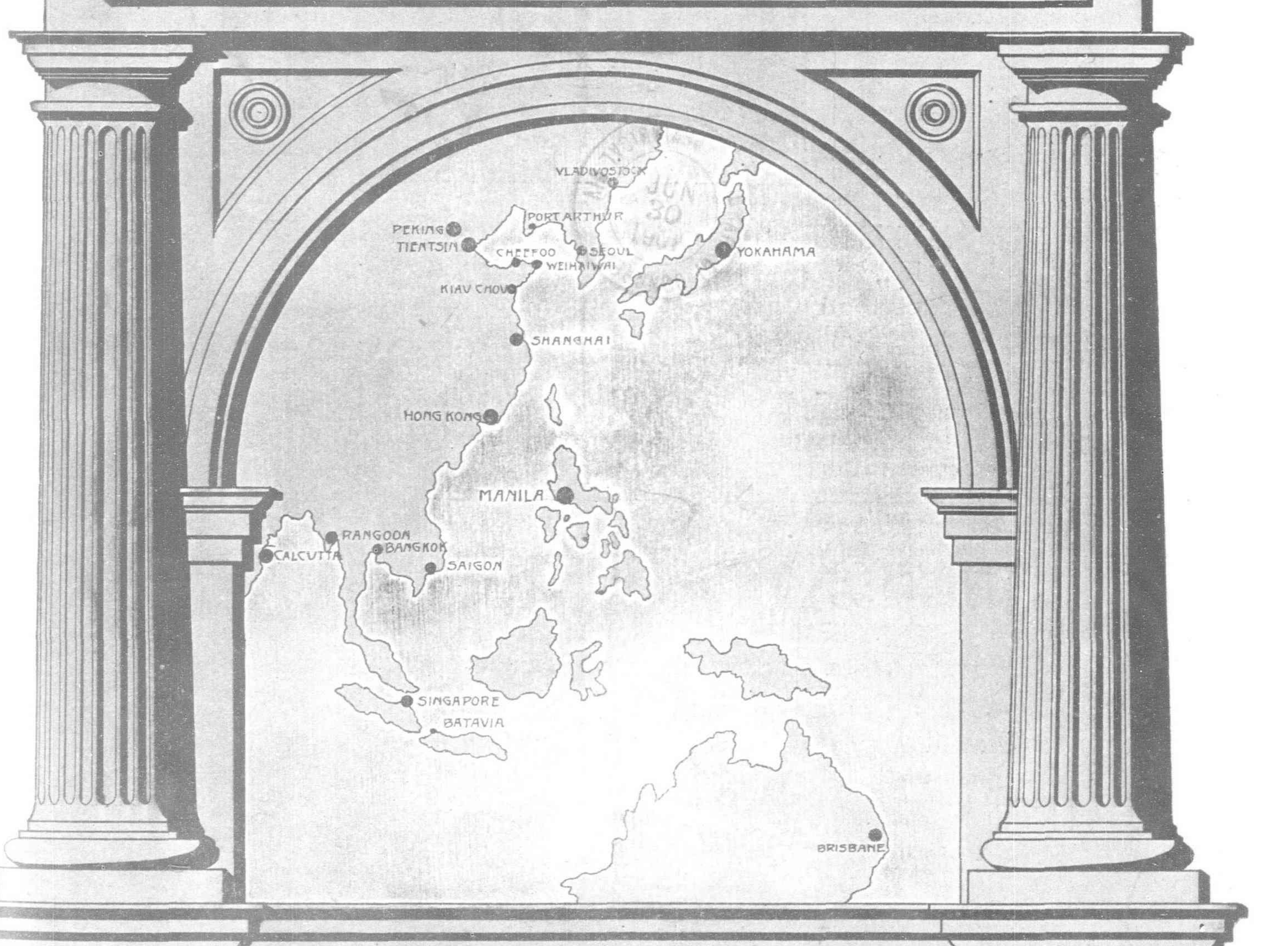
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VOL. III: No. 12. MANILA, SHANGHAI AND YOKOHAMA, MAY, 1907

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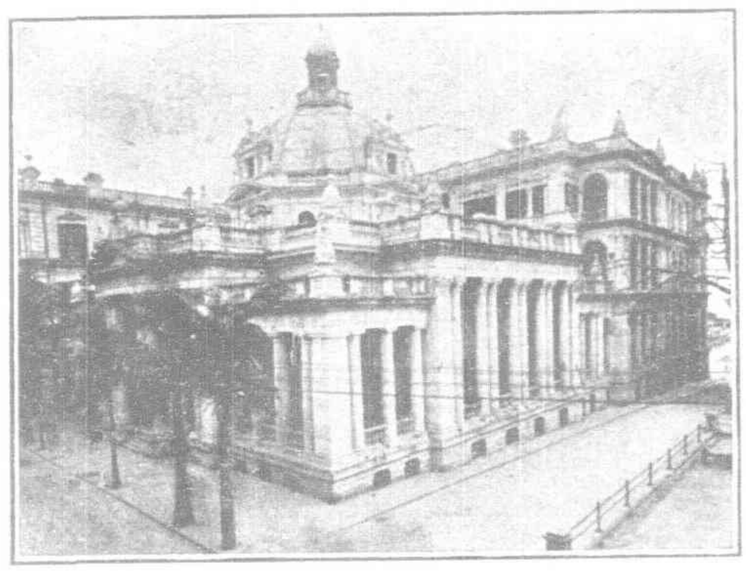
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THE FAR EASTERN REVIEW

COMMERCE • ENGINEERING • FINANCE

VOL. III. MANILA, P. I., SHANGHAI, AND YOKOHAMA, MAY, 1907. No. 12.

BAGUIO, THE SIMLA OF THE PHILIPPINES

A reservation of twenty square miles on a plateau with an elevation of 5000 feet is the center of what is termed the temperate zone of the Philippines. This reservation is known as Baguio and is situated in the province of Benguet about 170 miles north of Manila and accessible by railroad and stage or automobile. It is the summer capital of the Philippines and is rapidly growing in popularity as the mountain retreat of the inhabitants of the islands and the foreign residents who are now substituting a sojourn in Baguio for a trip abroad during the heated term.

It might be said that the Philippine commission found Baguio. At least it was that body that was responsible for its promotion. At first the commission simply intended the plateau for a retreat where its members could escape the torrid climate without taking a vacation and leaving the islands, but the necessity of having a cool and bracing climate for all insular employees resulted in the expansion of the original idea and now the commercial interests as well as private interests have become impressed with the advantages of a temperate climate for recuperation within easy distance of the torrid zone during the months of February, March, April and May, the period known in the Philippines as the heated term. It might be said that the city of Baguio is a center for recuperation for the Philippines, the establishment of which was promoted by the government with the result that every interest in the Philippines is participating with evidence of substantial returns in health and renewed vigor for all.

When the commission decided to take advantage of the Baguio climate and do away with the necessity of a vacation, the hills were only accessible by the most difficult and circuitous trails used by the Igorots. From Manila it was a week's journey and only the hardiest could hope to survive. It was then decided to build a suitable wagon road and estimates were furnished at what seemed a very reasonable figure. It was found that these estimates were far from correct and at one time the work was almost abandoned when it was discovered that there were engineering problems to solve never anticipated in the original surveys. However, to the credit of the government, it refused to turn back after it put its hand to the plow and, assailed by the most severe critics, it completed, under the supervision of Colonel Kennon of the United States Army, a highway to the mountains that will stand a monument to American enterprise in the far east, and the rugged scenic beauties of which are not duplicated even in the delightful cañons of the Rockies. This road was completed in 1905 and instead of climbing for a week to reach this center of recuperation the Philippine pilgrim may now leave Manila on the Manila and Dagupan line at 10 o'clock at night and by taking an automobile at Dagupan arrive in Baguio in time for breakfast.

In the meantime surveys have been completed as far as Camp One for a railway from Dagupan which will be completed within ten months. Camp One is 21-miles from Baguio by the Benguet road and already capitalists are interested in securing a franchise to complete the connection by an electric line.

The promotion work of the government began with the setting aside of an area of twenty square miles on the most extended plateau available. Plans for a model city were prepared and surveys made dividing the area into a business and a residence district. A certain section was reserved for the proposed civil government buildings and residences and the military selected a most desirable site for a convalescent post now known as Camp John Hay. The military reservation covers an area of 550 acres and is included in the general Baguio reservation.

When the proposed city was thus laid out into lots an auction was held and in all almost 200 lots were sold to the highest bidders. In this way the inhabitants and foreigners were interested in the development of the city. All the money secured from the sale was turned over to the provincial authorities and utilized for the purpose of building roads and thoroughfares throughout the proposed city and up to the present time over ten miles in streets have been completed and carefully surfaced with macadam, making every section easily accessible by automobile or carriage. The result is that the residence portion is being rapidly built up with summer residences and already two modern hotels have been built. The present season may be said to have initiated a general stampede to the hills, as the transportation facilities have been greatly improved. From reports both the hotels have been filled to overflowing since the first of February and there is not a cottage that is not occupied by seekers after the ozone of the hills. Within another year it is safe to predict that the dream of the promoters will be more than realized. It might also be said that the enormous expenditure for the construction of the Benguet road so freely criticised at the time it was underway is now recognized by the most bitter

(Continued on page 376.)



SUSPENSION BRIDGE OVER GORGE NEAR CAMP FOUR ON THE BENGUET ROAD

THE FAR EASTERN REVIEW

GEO. BRONSON REA, M. E.
PUBLISHER AND EDITOR

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PROSPECTS FOR PHILIPPINE SUGAR

Weaker and weaker grow the arguments of the sugar trust against the "square deal" for the Philippines in the form of free trade. The opposition to the free entry of Philippine sugar into the United States is apparently confined at this time to political juggling in congress, ostensibly to keep the Philippine bill from escaping from its living tomb in the senate committee room.

According to the figures of the bureau of statistics of the department of commerce and labor for the year 1906, six and one-half billion pounds of sugar were consumed in the United States, and of this one-fifth was produced in the United States proper, one-fifth in the insular possessions and THREE-FIFTHS were imported from foreign countries. Of all this amount of sugar imported into the United States the Philippines furnished but 26,283,929 pounds or .006 of the total amount imported into the United States to meet the growing demand. Of this three-fifths, Cuba supplied 2,683,893,033 pounds, leaving a balance of 1,180,772,628 pounds minus the paltry 26,283,929 pounds from the Philippines supplied by the Philippines to come from foreign countries not bound by any ties to the United States or forced to submit to the dictates of a senate in the grip of the sordid money power.

It is remarkable how agile the enemies of Philippine sugar can become when there are indications that the sugar producer in the United States is becoming undeceived, and is beginning to realize that he is being hoodwinked by a ring that has for its purpose the retention of the control of the sugar product so as to dictate prices to the consumer. Even the *American Sugar Industry and Beet Sugar Gazette*, one of the leading sugar publications in the United States, in an unguarded moment admits that even with the rapid increase of sugar production it has not kept pace with the increased consumption. The natural conclusion is that all the sugar that the Philippine Islands could produce would not make up the present deficit and that if past experience were a criterion for the future of sugar, the shortage in production to meet the demand would increase instead of showing any signs of diminishing. Referring to the report of the bureau of statistics of the department of commerce and police for the year 1906, the *American Sugar Industry and Beet Sugar Gazette* says:

"Complete figures compiled by the Bureau of Statistics of the Department of Commerce and Labor show that the quantity of sugar brought into the United States in 1906, plus that produced at home, minus the quantity exported, amounts to nearly six and one-half billion pounds, and if we divide into this enormous total the number of people in the United States we get an average consumption of 76 pounds per capita. The cost of this six and one-half billion pounds of sugar to the consumer must have been over 300 million dollars, since the average wholesale price in the New York markets of refined sugar has been, for the year, 4½ cents per pound; and when to this are added the cost of transportation to the consumer and the profit of the retailer, it is quite apparent that the cost to the consumer must have been more than 300 million dollars during the year just ended.

"One-fifth of this enormous total of six and one-half billion pounds of sugar was produced at home, another one-fifth was brought from our own islands, and the remaining three-fifths from foreign countries, these statements being of course in round terms. The actual quantity of sugar imported from foreign countries, including the Philippines, during the year, as shown by the reports of the Bureau of Statistics just completed, was 3,864,665,661 pounds; the quantity brought from Hawaii and Porto Rico was 1,281,384,946 pounds; the quantity produced in the United States is estimated for the year at 1,304,600,000 pounds and the quantity exported was 25,731,407 pounds. Of the 3,864,665,661 pounds imported from foreign countries, 2,683,893,033 pounds was from Cuba; 425,372,363 pounds from the Dutch East Indies; 303,430,122 pounds from Germany; 163,496,319 pounds from the West Indies, exclusive of Cuba and Porto Rico; 713,627,104 pounds from South America, and 26,283,929 pounds from the Philippine Islands. The quantity contributed by our islands was, from Hawaii, 852,468,867 pounds; from Porto Rico, 428,916,079 pounds; and from the Philippines, 26,283,929 pounds (the latter figure, however, being included in the imports from foreign countries).

"More than nine-tenths of the sugar imported from foreign countries and all of that brought from our own islands was produced from cane, and less than one-tenth from beets. Of the production in the United States a little less than one-half was from cane and a little more than one-half from beets. Of the six and one-half billion pounds of sugar consumed in the United States last year, five and one-half billions was produced from cane and about one billion pounds from beets. This is in marked contrast with conditions in Europe, where by far the larger proportion of the sugar consumed is produced from beets.

"The quantity of beet sugar consumed in the United States varies greatly. The quantity brought in from foreign countries (chiefly Germany) was, in 1906, in round terms 375 million pounds, but in 1905, only a year earlier, the total was but 50 million pounds, while in 1904 it was 225 million pounds. The quantity supplied by home production is steadily increasing, having been but 185 million pounds in the year 1900 and in 1906 672 millions, having in that year for the first time exceeded the production of cane sugar in the United States. The cane sugar produced in the United States in 1900 was 390 million pounds and in 1906, 600 millions. Thus beet sugar production increased 260 per cent from 1900 to 1906, while cane sugar production increased but 54 per cent, these figures being based upon the latest estimates of the 1906 production. The actual increase in quantity produced in that period was, of beet sugar 487 million pounds, and of cane sugar 210 millions.

"Rapid as the increase in sugar production in the United States has been in recent years, it has not by any means kept pace with the increased consumption. The consumption in 1896 was 4,390,592,640 pounds, and in 1906, 6,415,389,120 pounds, the increase in consumption in the ten years being 2,024,816,480 pounds. The production in 1896 was 647,635,520 pounds, and in 1906, 1,304,607,360 pounds, an increase of 656,971,840 pounds. The increased consumption in the ten-year period was 2,025 million pounds and the increase in production only 657 million pounds. Thus the increase in consumption from 1896 to 1906 was more than three times as great as the increase in home production. The share which domestic sugar formed of the total consumption in the United States was according to the Bureau of Statistics of the Department of Commerce and Labor, in 1906, 20½ per cent; in 1905, 21.9 per cent; in 1895 19.4 per cent, and in 1880, 16 per cent. Prior to the civil war domestic sugar formed more than one-half of the total amount consumed in the United States having been in 1855, 57 per cent, and in 1845, 73 per cent, though at that time the quantity consumed per capita was far less than at present, having been in 1845, 20 pounds; in 1855 and in 1860, 30 pounds; in 1870, 35 pounds; in 1880, 43 pounds; in 1890, 53 pounds; in 1900, 65 pounds, and in 1906, 76 pounds per capita.

"The following table shows the sources of supply of the sugar consumption of the United States for the calendar year 1906:

	Pounds.
Cuba	2,683,893,033
United States	1,304,607,360
Hawaii	852,468,867
Porto Rico	428,916,079
Java	425,372,363
Germany	303,430,122
South America	173,627,104
West Indies (except Cuba)	163,496,319
Belgium	65,861,744
Philippine Islands	26,283,929
Austria-Hungary	9,934,000
Mexico	3,186,469
Other countries	9,575,715
Total	6,450,653,967
Less sugar exported	25,731,407
Amount available for consumption	6,424,922,560

"Of the above imports of sugar that from Porto Rico and the Hawaiian Islands entered free of duty, that from the Philippine Islands at 25 per cent below the regular rates of duty, and that from Cuba, under the reciprocity treaty, at 20 per cent below the regular rates of duty.

"The following table shows the annual average consumption of sugar in the United States and share thereof supplied by domestic production and by imports from Porto Rico, Hawaii and the Philippine Islands, by quinquennial periods, 1876 to 1905:

Annual average consumption for period—	Consumption of sugar in United States.	Share supplied by domestic production.	Share supplied by imports from the islands.
	Tons.	Per cent.	Per cent.
1876-1880.....	816,500	16 3	13 3
1881-1885.....	1,195,800	15 5	15 8
1886-1890..... ..	1,450,600	14 9	17 6
1891-1895.....	1,912,300	15 7	11.3
1896-1900.....	2,066,300	13.9	13 1
1901-1905.....	2,577,489	20.0	16 8
1906.....	2,864,913	20.3	20 3

Upon the heels of these figures setting forth the truth of the sugar situation *The Louisiana Planter* comes harping on the old argument and even goes so far as to claim that Cuba has been ruined in so far as the price for sugar is concerned by the fact that her sugar was admitted to the United States under a reciprocity concession and that the Philippines would also be ruined should their sugar be admitted for the reason advanced that prices would drop so low that the islands would soon have to find a more desirable market. All this when there is a shortage of production after using all the Cuban sugar of about 600,000 tons that must be supplied by foreign countries and which shortage, according to the latest statistics, must be expected to increase regardless of the wonderful strides made in the development of the sugar industry in the homeland. In substance *The Louisiana Planter* is willing to admit that the planters in the Philippines are capable of greater enterprise than the sugar planters in the United States in that the former would not only overcome this shortage but flood the market with such a surplus of their product that the trust would have to give it away to get rid of it. This sophistry may go down with that portion of the population that is ever ready to welcome mouthings of demagogues if the latter can produce some stray phantom by way of illustration. Commenting on the campaign of the Philippine delegation the *Louisiana Planter* has ignored the available data on the subject and presuming that its statements will be taken at their face value says:

"Every once in a while we read quotations from what Secretary Taft or Gen. Wood says or has said concerning the production of sugar in the Philippines, and its possible competition with American sugar. The arguments that are constantly uttered are founded upon the assumption that the present alleged primitive condition of things obtaining in the Philippines would be indefinitely maintained and that because the Philippines now produce but from 150,000 to 200,000 long tons of sugar, that that is the amount that we should anticipate as coming in competition with us. In the same breath, however, these advocates of concessions to the Philippines admit and assert that the sugar industry can be benefited there by adequate concessions; that the land is susceptible of producing large crops; that the labor supply is reasonably good; and that capital can be secured to engage in sugar production in the islands, provided the concessions be had. Thus it is manifest that they would expect to raise the present production of a quarter of a million tons to half or three-quarters of a million tons within a comparatively few years, as otherwise there would be but little inducement for American capitalists to go over here and engage in the sugar business.

"We see now what the reciprocity concession to Cuba has done, the way it has broken the Cuban market down to so low a figure that Cuban sugars are now occasionally going to England, notwithstanding their admission into the United States at some thirty-four cents per hundred pounds less duty than other foreign sugars, of the same grade. It would be the same way with the Philippines. They would break the market down upon themselves and the concession made to them in the way of reduced duties would surely be of little or no benefit to them; would lower the general markets of the world and the United States in particular and our domestic industries would be the sufferers, just as they are now by the increasing Cuban competition."

From the above the exiles in the Philippines are in a sad way. To hope to secure a market for their sugar means that they are simply courting self-destruction. Sweet as might be death by over production of sugar in the Philippines, *The Planter* warns us against the temptation to indulge. Very unfortunately our contemporary is needlessly alarmed but it would be unkind in the exiles not to appreciate the timely warning in view of the fact that there is every indication that the manufacturing interests of the United States may yet find in the Philippines a desirable market and take sufficient interest in our welfare to rescue the Cooper bill from its living tomb in the senate committee room and put it on its final passage. This prospective suicidal wave predicted by *The Planter* is even more pleasant to anticipate than the present unpleasant chloroforming experience.

SHIPBUILDING IN THE PHILIPPINES

Throughout the far east during the last ten years no industry has developed with greater strides than shipbuilding. From Moji to Singapore, every port of prominence boasts one or more prosperous dockyards and every year these institutions are expanding. In the Philippine archipelago, with its extended coastline and its growing interisland commerce, it would seem natural to expect that the shipbuilding industry would now be enjoying an unprecedented boom and be participating in prosperity equal to that the firms are indulging in along the coast of Japan, China and the Straits Settlements.

This, apparently, is not the case. Contracts that would seem to be the natural portion of the Philippine firms are secured with little opposition by Hongkong and Singapore. In fact the competition does not seem to lie between the Philippines and outside competitors but among the outsiders only. Singapore and Hongkong, for instance, decided between them which port would repair the McClellan. There were no Philippine bids, for the reason that there is no yard equipped to do the work and besides there seems good reason to believe that with the very best equipment no Philippine yard could hope to compete with outside prices. This conclusion is reached by the Philippine firms through their experience in bidding on contracts that they are fully equipped to handle.

This not only applies to contracts let by the United States and the insular government but to the construction of vessels for the interisland trade and the repair work necessary on the vessels in operation in Philippine waters.

It is true that the dockyards in the islands are entitled to free entry on material used in government construction but this is not true on material utilized in construction for the local trade. In either class of contracts the Philippine firms are obliged to compete with the dockyards of China ports having the advantage of cheap labor which by the provision of the Chinese exclusion law is shut out from the Philippines. This in itself makes such a difference in the cost of production that in competition with the China dockyards the Philippines suffer from a severe handicap but when there is added the heavy duties on materials imported into the islands competition with these free ports is impossible. In this connection it is only reasonable to conclude that the Philippine shipping firms may be depended upon to place their orders where the work may be done at the least cost. And experience has demonstrated that this conclusion is the correct one and to the discouragement of the unfortunate Philippine firms suffering from an undesirable and unreasonable handicap.

Viewing without prejudice the shipbuilding situation in the far east, it must be admitted that while the interests along the coast of Asia are encouraged in almost every form by the governments under which they are privileged to operate, nothing has been done in the Philippines by the powers that be to counteract in a substantial way the restrictions and handicaps, nor has the administration been consistent in going outside and evading the tariff and the exclusion law to secure the cheap construction, while the shipbuilding interests in the islands are obliged to conform to these restrictions and see the work to their hand go to outside bidders.

It is only natural that the shipbuilding firms of the Philippines are discouraged and timid about investing any more capital in improving their equipment. They feel that Hongkong and Singapore offer better returns, since these ports capture all the Philippine business. They conclude that if they would participate in Philippine shipbuilding and repair work their only hope to enter into fair competition would be to establish themselves where, at least, their competitors have no apparent advantage.

It is true that some effort has been made to secure legislation providing for the removal of the tariff on materials for the shipbuilding trade imported into the Philippines, but so far it has been ineffective for the reason that the spirit of co-operation seems to be lacking among the Philippine firms interested. Whatever has been done in this direction has been the work of a disinterested press with a minimum of moral support. The fight for recognition at Washington for the shipbuilding firms of Manila should be well organized and those in charge of it must overcome a mountain of prejudice in the war department. It is down on the books of the war department that in the early days of American occupation these same firms overcharged the federal government right and left. Those were days, so the military claim, when the Manila shipbuilding firms and the machine shops had the United States at their mercy and that they took an unfair advantage of the government. And so, right or wrong, the war department is far from being disposed to help these firms out at this time.

Whether the accusations of the war department be true or not, the deep seated prejudice must be overcome before favorable legislation may be expected. It is the war department that controls all legislation for the Philippines, and, if relief is to be had, the Manila firms must first make peace with that department, This cannot be done unless all those interested unite upon some course and hammer away at it until Washington realizes the justice of their cause. The Manila firms claim that at no time were their charges excessive and that they have ever endeavored to assist the military in every way. It only remains for them to convince Washington that this is so to secure a hearing.

Even should the tariff be removed on all materials used in the construction and repair of interisland craft, Manila would be at a disadvantage in competition with other firms in the far east on account of the high price of skilled labor, due to the operation of the exclusion act against the Chinese. The removal of the tariff, however, would prove a gain in the right direction and there is reason to believe that before many years the labor problem will be solved either by the development of skilled Filipino labor or by the suspension of the Chinese exclusion law as applied to the Philippine Islands.

In the meantime, the future of the shipbuilding trade of Japan, of China and the Straits could not be brighter. The equipment is improved yearly to keep pace with the increased output. With free ports, reasonable prices for labor and the encouragement given by the respective governments, the different shipbuilding companies have the far eastern field all to themselves.

So long as present conditions continue they may depend upon the bulk of Philippine contracts, which is no small consideration when the repair work of the federal government is taken into account. The prospect at the present time for remedial legislation at Washington is not bright and it will not grow brighter until, as we said before, some concerted action is taken to overcome the prejudice of the war department.

CIGAR MAKING IN THE PHILIPPINES VERSUS HONGKONG

The reported transfer of the Oriente Cigar Factory from Manila to Hongkong has been the subject of some discussion in the press of Hongkong and Manila as to the advantages to be derived from such a departure on the part of the company. Collector Hord, in charge of the bureau of internal revenue, has made a statement that seems to throw some interesting light on the subject and counteracts the impression that the enforcement of the internal revenue tax has injured the cigar or cigarette business of the islands. Mr. Hord admits that in the manufacture of cigars the manufacturer would have an advantage by locating in Hongkong from the cheap labor available, but corrects the misleading report that the Philippine government imposes an internal revenue tax on cigars exported, or otherwise discourages the industry.

In this connection the following contribution to the *South China Morning Post* of Hongkong by a correspondent who signs his articles D. S. Dady Burjor will be of interest as presenting the view of the resident of Hongkong without all the facts before him:

"Since the publication of my letter in your issue of the 17th April in connection with the cigar making industry in the Philippine Islands, some doubt has been expressed by several expert cigar manufacturers of Manila as to the actual and tangible advantages that will accrue if the cigar factories are established in this free port of Hongkong, and as I have been asked to prove my assertions by a demonstration of concrete and solid facts, I beg leave to return to the subject and discuss it from the various aspects it presents. Broadly speaking, there are five different aspects or standpoints from which the subject can be scrutinized and surveyed, to make it as plain as the mid-day sun even to the meanest intellect that the advantage all points in favor of Hongkong, where the manufacturer is not handicapped by vexatious laws, nor is he over burdened with any Customs imposts with its thousand and one absurd formalities. These aspects are (1) industrial taxations, (2) cost of labor, (3) import duty on materials, (4) export duty on manufactured articles, (5) Chinese Exclusion act.

"As regards the incidence of industrial taxation there does not seem to be any material advantage on the side of Hongkong, as in Manila an annual fee of fifty pesos for corporation license, twenty pesos for manufacturer's license, and a building tax of one and a half per cent on the assessed value of the factory building have to be paid, against the tax of 13 per cent on the assessed rental of the building, and the Crown rent that the Hongkong Government imposes here. Perhaps in this respect Manila and Hongkong run a neck to neck race.

"The cost of labor will most decidedly be cheaper in Hongkong where the teeming millions of industrious, lawabiding, and peaceful Chinese population on the mainland of South China have a free, easy, and welcome access, and where they are given every facility to pursue their peaceful avocations. As I said before the Chinese workman is an apt pupil, and in course of time he will excel his easy going, indolent, and pleasure-loving Filipino rival in the art of making cigars. This is an advantage for free Hongkong which all the ingenuity of the American government will prove impotent to combat or snatch away.

"The import duty imposed on materials to be imported from Europe in Manila gives a decided advantage to the factories established in Hongkong. For high class and expensive cigars for which fancy prices are charged, perhaps this item may not be so serious as it is for cheap cigars and cigarettes in which of late there has sprung up a brisk trade. In order to demonstrate how heavily and injuriously it weighs on the cheap cigarette industry, it may be pointed out that the import duty on one case of cigarettes amounts to pesos 1.26 which represents some 2½ per cent on the selling value of a case. To this has to be added the difference in export duty between the leaf tobacco and the manufactured product, a point to which I am coming presently, and further the advantage of cheap Chinese labor, and one can have no doubt left as to the decided advantage Hongkong has over Manila, and as to how the whole export trade in cheap Manila cigarettes is seriously threatened by the establishment of rival factories in Hongkong and the mainland of South China. It must also be remembered that no skilled labor is required to produce this article, as the handling of the necessary machines is easily learned, and needs no elaborate training.

"Export duty from Manila on raw or leaf tobacco and its manufactures is as follows:—

Customs Tariff.

Article 403. Tobacco, manufactured of all kinds and whatever origin, one hundred kilos (gross weight) 3.00 pesos.

Article 404.—Tobacco raw, grown in the provinces of Cagayan, Isabela and Nueva Vizcaya (Luzon Island) one hundred kilos (gross weight) 3.00 pesos.

Article 405.—Tobacco, raw, grown in the Visayas and Mindanao Island, one hundred kilos (gross weight) 2.00 pesos.

Article 406.—Tobacco, raw, grown in other, provinces of the Archipelago, one hundred kilos (gross weight) 1.50 pesos.

To these duties a wharfage tax amounting to five per cent of the above has further to be added. Now although the Cagayan and Isabela leaf tobacco apparently pays the same export duty as the manufactured product, that is the cigars and cigarettes, in reality the manufactured product pays a far higher rate of duty as it is levied on the gross weight of the packages—that is to say, on cigars and cigarettes and also the weight of the boxes or paper packets in which they are packed. Thus a bale of four quintal (1 quintal=100 Spanish lbs.) leaf tobacco, weighing gross 192 kilos, and net 185 kilos pays 6.05 pesos export duty, which is equal to 3.27 pesos per 100 kilos on the net weight of the leaf, while a case of ten thousand 14 lbs. cigars weighing net 65 kilos is required to pay 3.43 pesos for duty on its gross weight, which is 109 kilos, thus making it in reality 5.28 pesos per 100 kilos on the net weight of the cigars, against 3.27 pesos per 100 kilos on the net weight of the raw article. Here then is the tariff absurdity revealed, and it portrays before us the edifying sight of a paternal government taxing the manufactured goods of the country under its protecting ægis fully 80 per cent over and above the raw material exported for the benefit of its rivals. But this is not all. This difference between the raw leaf, and the manufactured article becomes still more aggravated and accentuated when it touches the cheap grade cigars, and especially cigarettes in the manufacture of which cheap grades of leaf paying an export duty of only 2.00 pesos and 1.50 pesos per 100 kilos respectively are used. While a case of 1,500 packets of cigarettes pays 2.94 pesos for export duty, the raw tobacco for making the same quantity of cigarettes would pay only 2.16 pesos as per articles 405 and 406, showing a difference of 0.78 cents in favor of the raw article. If to this is added 1.26 pesos paid for import duty on materials as mentioned, it runs up to a total of 2.04 pesos or a saving of fully four per cent in favor of Hongkong, and this not counting the saving effected by cheap Chinese labor. In justice to the American authority in the Philippine Islands be it said that there is a provision made to refund to the manufacturers the import duty paid on materials used in their manufactures and re-exported, but this regulation is so hedged about with grossly absurd stipulations, and difficulties, that it has come to be looked upon more as a huge joke than a provision that is honestly calculated to lighten the burden of taxation on the manufactured goods. According to this provision the Customs authorities reserve to themselves the right to sample, and otherwise test the correctness and validity of the claim before the shipment of the goods, and they further require the exporter, the manufacturer and his foreman to appear at the Custom House and solemnly and sincerely swear to the quantity and value of the materials used, and also to the fact that a certain quantity of such materials was imported as a certain stated parcel. It is of course superfluous for me to add that the manufacturers have ceased trying to apply for this homeopathic dose of relief so mockingly offered to them by the American Government.

"It is hardly necessary for me to dilate at any length on the evil effect the Chinese exclusion act has produced on the industry in the Islands. By having closed the door of entry fast in the face of the Chinese the American Government has deprived the islands of the benefit of cheap labor and driven away several small Chinese factories to Hongkong, Macao and Canton where at present they are doing a thriving trade in cheap cigars and cigarettes.

"Hongkong has therefore nothing absolutely to fear, as until the American Government abolishes the export duty on manufactured goods, and either ceases to collect import duty on materials used in the cigar and cigarette industry, or devises an equitable and easy system of refunding the duty on all materials used on manufactured goods re-exported, the advantages enjoyed by factories established in Hongkong will remain untouched and intact. The Americans are known to be so fondly wedded and hopelessly enslaved to their tariff barriers, that there is very little chance of their ever adopting the truly heroic measures I have enumerated above to contest the advantages a free port like Hongkong has acquired as a natural sequence."

The following is the statement made by Collector Hord at the request of Governor General Smith:

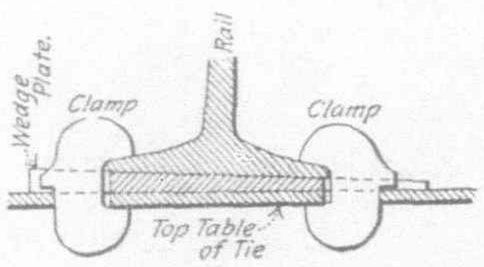
"The Oriente Factory had an output during the calendar year 1905 of 28,429,745 cigars, and during the calendar year 1906 its output was 34,393,174; a total output during the two years of 62,822,919, of which only about 6,904,900 cigars were sold within these Islands for domestic consumption, and the balance of the output, 55,918,019, were exported to foreign countries. This shows an increase in the output of said factory during the calendar year 1906 as compared with the calendar year 1905 of nearly 6,000,000 cigars, equal to an increase of 20 per cent in its 1906 business as compared with its 1905 business. The Internal Revenue Law exempts all cigars exported from these Islands from the tax; the Oriente Factory during the two years exported over 90 per cent of all the cigars it made, and therefore only paid internal revenue tax on less than 10 per cent of its output. The Oriente Factory, in common with all of the cigar factories in these Islands, have added the internal revenue taxes, since they were imposed, on all cigars sold by them, and have received back from the middlemen and merchants an amount equal to, at least, the internal revenue tax paid by them on removal of the cigars from their factories. The situation of the Oriente Factory must, therefore, be stated as follows: since the internal revenue law was enacted they have been absolutely exempt from all tax on over 90% of their output, and have recovered back from the consumers, through the dealers, the internal revenue tax they paid on the remainder.

"Under the old Industrial Tax Law, which the Internal Revenue Law repealed, the Oriente Cigar Factory paid to the City Assessor and Collector of Manila, on March 29, 1905, its last industrial tax payment, amounting to ₱4,987.91, that being 5 per cent of the dividends on its business for the last year of the industrial tax. That amount it did not recover back from the consumers nor from the dealers. Under the industrial tax law the export business of the factory was not exempt. Under that

WEDGE TYPES OF RAIL FASTENINGS FOR USE WITH STEEL TIES

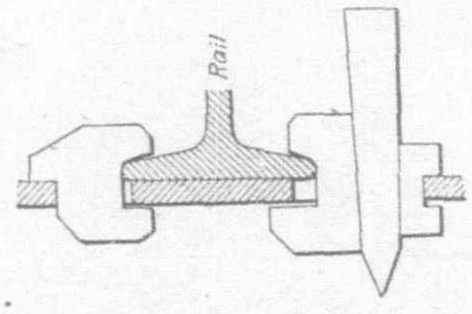
The type of rail fastening most commonly employed in connection with steel ties is a combination of bolts and rail clamps or clips, and this type of fastening has in general proved very satisfactory in service, both in regard to security and to maintenance. The bolts require little attention and show little tendency to become loose, when once brought to a full bearing, although when first applied they have usually to be tightened two or three times. This has been the experience abroad, and so far as we are informed it has been the same in this country. Another type of fastening, which is used to a limited extent abroad, is an adaptation of the screw spike for wooden ties, a short screw being threaded into a plate secured on the inside of the tie, while the head of the screw bears directly upon the edge of the rail base. This latter system appears to be less satisfactory than the other, and in the "Bulletin" of the International Railway Congress for January, 1907, Mr. L. Schlussel, of Paris, France, presents a mathematical analysis of the causes which tend to cause the working loose of screws when used as rail fastenings.

His proposed remedy is to use clamps instead of screws, and while this type of fastening was employed in some of the earliest designs of track construction with steel ties, Mr. Schlussel's application is novel. The general arrangement is shown in Fig. 1, and it will be seen that there is a single clamp on each side of the rail, inserted in an oblong hole and then turned round so that its upper and lower projections bear upon the inside of the tie and the top of the rail flange. The projection at the back keeps the clamp from slipping through the hole while being applied. The pressure or grip of the clamps it set up by means of a wedge-shaped tie-plate beneath the rail. Presumably this is the ordinary European tie-plate, having an inclined face to give an inward inclination to the rail (conforming to the coned tread of the wheels), but instead of being mechanically attached or locked to the tie it is held simply by the friction due to its being driven in so as to set up the pressure between the clamp, the rail and the tie. The function of the wedge plate is to produce this pressure, while the function of the clamp is to maintain the pressure necessary to secure the rail firmly in place.



PROPOSED WEDGE-CLAMP RAIL FASTENING FOR STEEL TIES

I. Schlussel, Paris, France, Inventor.

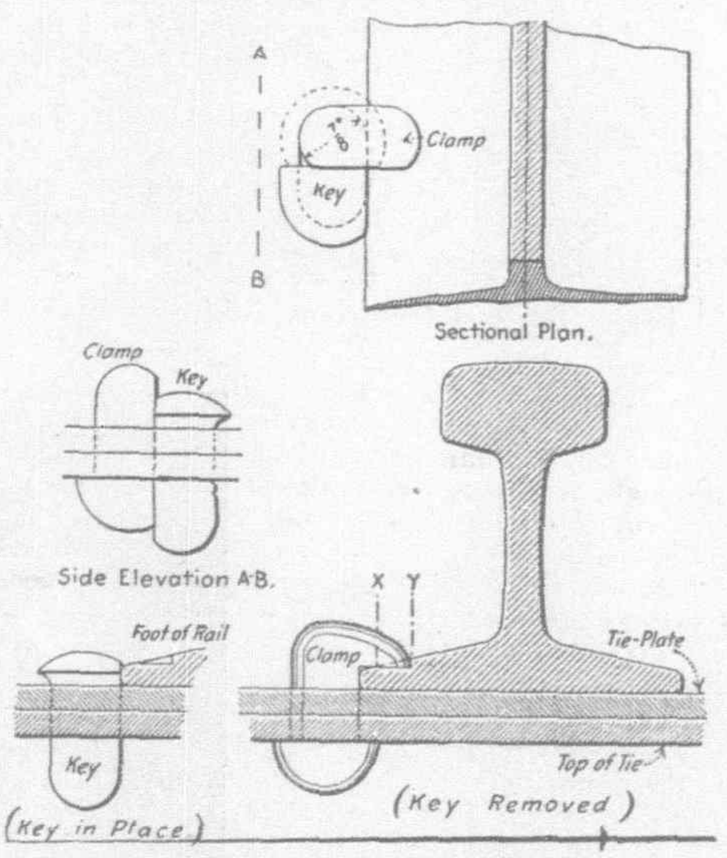


WEDGE-CLAMP RAIL FASTENING USED WITH STEEL TIES IN GERMANY

In this connection we have received a letter from Mr. Albert J. Himes, M. Am. Soc. C. E., Assistant Chief Engineer of the New York, Chicago and St. Louis Ry., at Cleveland, O., commenting upon the Schlussel system and describing another form of wedged-clamp fastening designed by him some years ago. It embodies the same principles, and the main difference is that in order to produce the pressure it employs (instead of the wedge-plate under the rail) a horizontal lip or projection on the upper end of the clamp which will be distorted when forced upward on the rail base, as at X-Y in Fig. 2. The clamp is secured in position by a vertical key inserted in the same hole in the tie. Mr. Himes suggests that much study will be required to perfect a fastening that will be to track with steel ties what the spike has been to track with wooden ties, and he considers that some fastening of the sort proposed by him would be found much more economical and satisfactory for use with steel ties than the threaded bolts with washers and nuts which are now being used. One objection that appears evident, however, is the possibility of causing cracks at the holes in the ties, due to the strain and shock incident to the distortion of the clamp when being tightened upon the rail. However, experience alone can prove or disprove the merits in a case of this kind.

As already noted, the wedge and clamp system of fastening has been used with steel ties from a very early date, and in Fig. 3 is shown a fastening of this kind which dates from 1867 and was at one time extensively employed in Germany and elsewhere. The clamps are somewhat similar to those of Mr. Schlussel, but with the back vertical, forming the bearing for a vertical gib or taper key. In the original design, the key was simply driven between the rail clamp and the metal of the tie, but the keys would work loose, causing considerable noise from the rattling of the parts, while the driving of the key and the vibration and shock under traffic frequently resulted in starting cracks in the tie at the holes for the fastenings. An additional clamp was therefore used, as shown, to give a larger bearing to the back of the key and also to relieve the metal at the hole from the direct action of the key. As thus modified it was found to give satisfaction and was used for 25 years and more, but the wedge type of fastening has now given place very largely to the bolted clamp type. It will be seen that each fastening consisted of four parts, as compared with three in Mr. Schlussel's proposed design. The adjustment of gage was effected by using clamps of varying widths.

Another fastening of the wedge type which has been very extensively used abroad within recent years, more especially in India, consists of a horizontal key wedge fitted between the edge of the rail base and a projection on the tie. The key is grooved to bear on the top and side of the rail base, and is driven longitudinally with the rail. The projection against which it bears is either stamped out from the face of the tie, or is a separate piece; in the latter case it may be either riveted in place or loosely fitted to a hole in the tie.—*Engineering News.*



VERTICAL SECTIONS
PROPOSED WEDGE-CLAM RAIL FASTENING FOR STEEL TIES

Albert J. Himes, Cleveland, O., Inventor.

law corporations paid the 5 per cent tax on profits, and concerns that were not incorporated paid at the rate of two pesos per annum for each cigar maker they employed. The new internal revenue law imposes no tax on cigar makers.

"The increase in the business of the Oriente Factory in 1906 as compared with 1905 shows that their business has not been ruined, nor is there any danger whatsoever of their being driven out of these Islands by the internal revenue tax. The Oriente Factory may be establishing a branch factory at Hongkong for the purpose of getting cheap labor, inasmuch as hand labor is the biggest factor in the production of cigars, but the owners of the Oriente factory have no intention of abandoning the Manila concern. On the contrary, they filed on January 25, 1907, in this office a bond, No. A-5-235, in order to qualify as manufacturers of cigarettes, an industry in which they had not hitherto engaged, or at least were not engaged when the internal revenue law was enacted. They have installed in said factory three German machines with a capacity of 150,000 cigarettes in 24 hours. They estimate their production for the current calendar year at 38,000,000 cigarettes.

"In view of these facts it is recommended that the wild statement attributed to Mr. Ingenohl in this interview be not given serious attention. Mr. Ingenohl, at the time the internal revenue law was enacted, and for a few months after that date, was a member of the Executive Committee of the Tobacco Interests of the Philippines, but he resigned from said committee about two years ago. Mr. Robles Lahesa, attorney for said committees, informed the Collector of Internal Revenue at that time that Mr. Ingenohl was too radical to get along with the other members of the committee, or words to that effect. If Mr. Ingenohl is going into the business of making cigars in China, it is because hand labor is cheap in that country, and if he is now engaged in the manufacture of cigarettes in these Islands it is because the cigarette machine practically eliminates the labor item; and in either event the internal revenue law of these Islands had no influence whatever in encouraging or discouraging either of the two new enterprises in which its prosperity makes it possible for the Oriente Factory to engage."

ENGINES AND BOILERS FOR SALE

Attention is called to the advertisement in another column of the Manila Navigation and Transportation Service in which the company offers for sale several engines and boilers to the trade.

OBITUARY

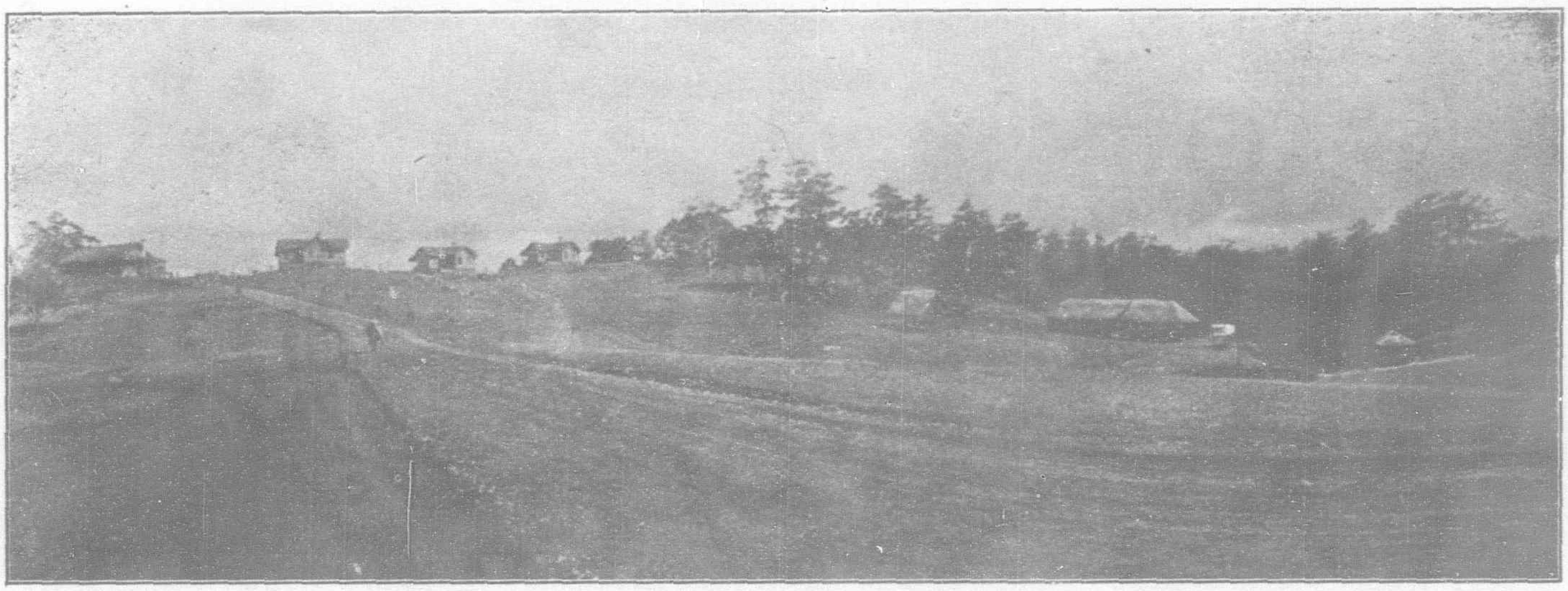
Mr. Patrick Doyle, the veteran editor and proprietor of the *Indian Engineering*, one of the leading magazines in the far east, passed away in Bombay while on his way to England to recuperate his failing strength. Mr. Doyle had been ill for many months, but none of his friends believed the symptoms alarming so that the news of his death came as a painful surprise.

BAGUIO, THE SIMLA OF THE PHILIPPINES

(Continued from page 371.)

critics as the best investment made by the Philippine government.

When referring to the difference in climate between Manila and Baguio it is not unusual for the American to point out the fact that it is but 21 miles from the torrid to the temperate zone in the Philippines. While this



CAMP JOHN HAY, BAGUIO, BENGUET

may not be true geographically it is an undisputed fact that the distance named will provide the torrid climate at Camp One and the temperate climate at Baguio. Between these two points there is an elevation of about 5,000 feet. The average temperature at Baguio the year round is about 75 maximum and 51 minimum. In December and January the thermometer sometimes drops to the freezing point and there are few evenings when a fire is not welcome. So the islanders may now easily escape from the enervating climate of the lowlands to the invigorating climate of the hills and find every accommodation for their comfort while convalescing.

Among the most substantial buildings erected in Baguio is that of Commissioner W. Cameron Forbes at a point called Topside. The residence cost ₱50,000 and is built of Benguet rock. A residence for the governor general is now being constructed at a cost of ₱30,000. The first story is of Benguet stone and the second of native wood. The commission recently appropriated 50,000 pesos for a sanitarium, while the military and the naval authorities have provided for a sanitarium each on a much larger scale. These institutions, while open to the hill people for treatment, are being established as convalescent hospitals. The civil sanitarium will be made available not only to government employees but to all who seek treatment there. The proposed naval hospital will be operated in conjunction with the large naval hospital at Canacao, Cavite, and all patients will be sent to the hills while in the convalescent stage.

At the present time Camp Hay is filled to overflowing with army officers and enlisted men who are recuperating their strength after hard service in the field or who have been exposed continually during their service here to the enervating climate. General Wood believes that by increasing Camp Hay to the size of a brigade post the tour of duty in the Philippines could be extended by giving every organization a chance to enjoy the benefits of the Benguet climate, for recuperation purposes alone. In this way a great saving in transportation would be made in the war department's appropriations for transportation to and from the Philippines. With the completion of a railroad into Baguio it is not improbable that this recommendation will meet with favorable action at Washington.

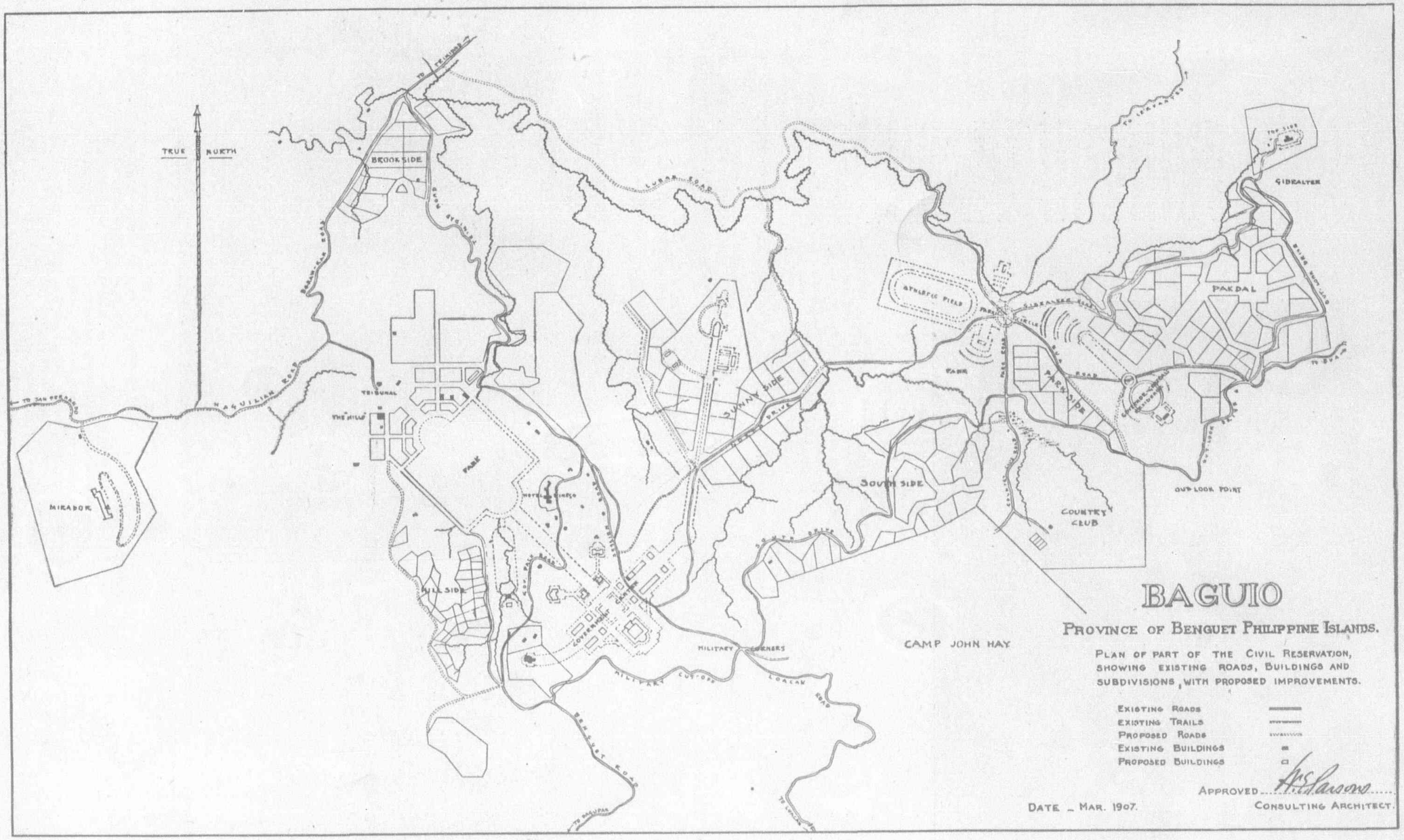


WHERE THE ROAD TO CAMP JOHN HAY, BAGUIO, BRANCHES OFF FROM SESSION ROAD

At Mirador, the Jesuits have selected a site for a monastery and observatory. This point is situated on the west side of the reservation and commands a view of the China sea over forty miles distant. It is an ideal spot for an observatory and it is the purpose of the order to equip the institution to the standard of their world renowned observatorium in Manila.

In addition to the private and government institutions the different religious organizations are establishing headquarters at Baguio with schools and seminaries for the Igorots and Americans and foreigners. Among these proposed institutions is a boys' school for white children to be conducted by the Episcopal mission. The object is to give foreign and

(Continued to page 378.)

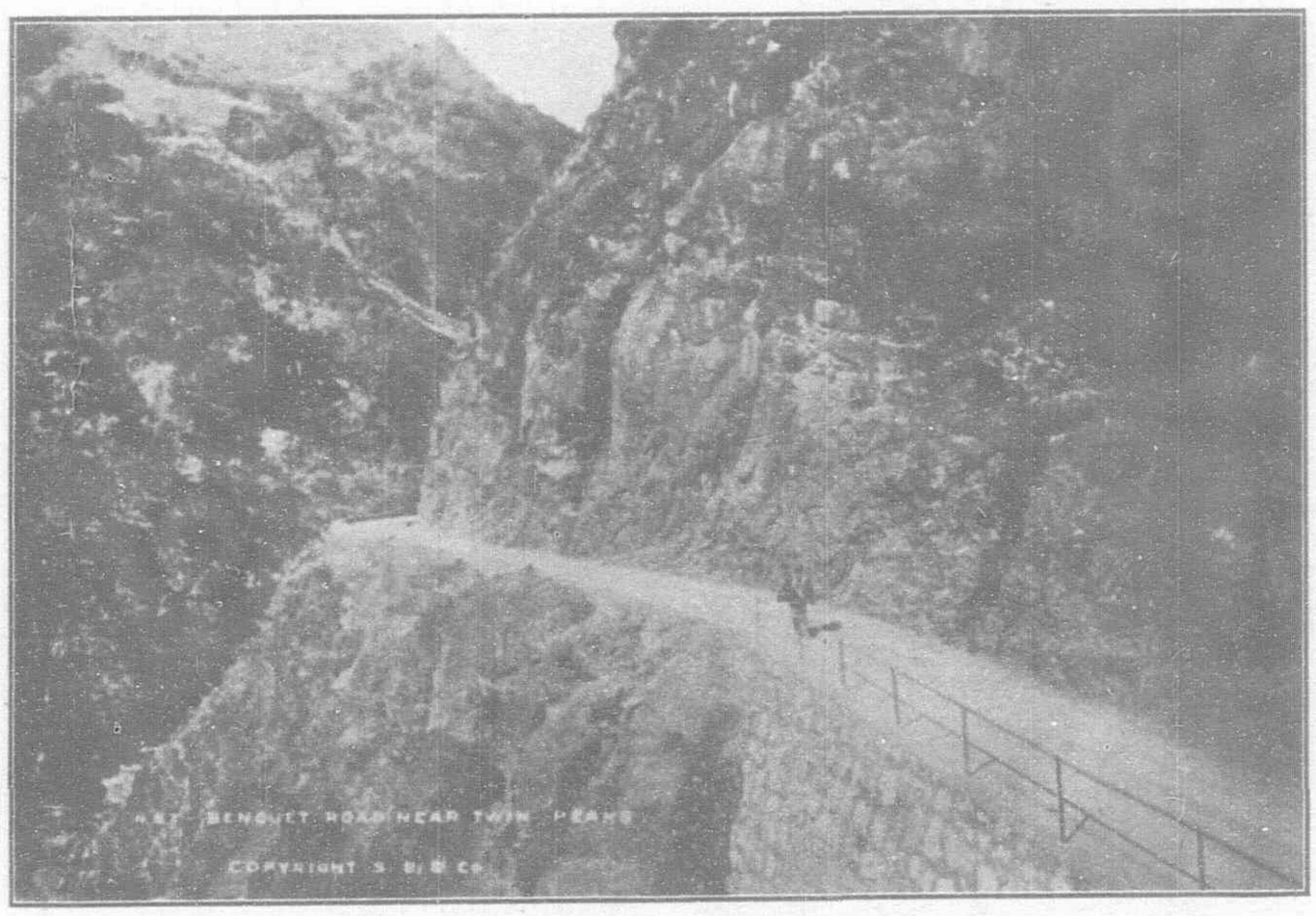

TRUE NORTH
BROOKSIDE
TO TRINIDAD
LUBAS ROAD
BENGUET ROAD
NAGUILIAN ROAD
TO SAN FERNANDO
TRIBUNAL
THE HILL
PARK
MIRADOR
SUNNY SIDE
ATHLETIC FIELD
PARK
PARKSIDE
SOUTH SIDE
COUNTRY CLUB
GIBRALTER
PAKDAL
TO DAGUPAN
OUTLOOK POINT
HILL SIDE
GOVERNMENT CAMP
MILITARY CUT-OFF
MILITARY GARDENS
BENGUET ROAD
LOACAN ROAD
CAMP JOHN HAY
BAGUIO
PROVINCE OF BENGUET PHILIPPINE ISLANDS.
PLAN OF PART OF THE CIVIL RESERVATION, SHOWING EXISTING ROADS, BUILDINGS AND SUBDIVISIONS, WITH PROPOSED IMPROVEMENTS.
EXISTING ROADS
EXISTING TRAILS
PROPOSED ROADS
EXISTING BUILDINGS
PROPOSED BUILDINGS
APPROVED H.H. Lawson
DATE - MAR. 1907.
CONSULTING ARCHITECT.

BAGUIO, THE SIMLA OF THE PHILIPPINES

(Continued from page 376.)

American children the benefit of an education in a climate as nearly similar as possible to the temperate zone.

The nucleus of the population of Baguio consists of the official family who have residences there, the military officers on duty at Camp Hay, the businessmen who have cast their lot in the mountain region and the now growing group of mining men who are developing the mineral wealth of the province. It is estimated that over 100 oz. of gold are brought out each month which is realized from the workings of three mines. More machinery is coming in monthly and the future of the mining industry of that region is most promising.



STRIKING PORTION OF THE BENGUET ROAD HEWN OUT OF THE SIDE OF THE MOUNTAIN OF SOLID ROCK

The forests of pine provide all the necessary timber for building purposes and firewood, and a saw mill has been in operation for several years. Mr. Whitmarsh, manager for the Benguet Commercial Co., is distinguished as the oldest settler and his beautiful home is the center of attraction to all pilgrims to the mountain region. In the well arranged grounds surrounding his residence may be found the rose and the pine flourishing side by side as they do in the mountains of California and it might be said that of no other tropical section of the far east may this be said.

The residents and the officials have taken a great interest in encouraging outdoor recreation and have organized The Country Club for this purpose. The grounds were cleared and the grass and rubbish burned off early this season so that next season they will be in first class condition. A nine hole golf course has been laid out and when the rainy season is over and the grass grows these links will not be excelled by any course in the far east in the matter of altitude or natural beauty. Besides the links, tennis courts, polo grounds and a diamond for base ball have been laid out, while a gun club has provided all the equipment for trap shooting. It is the purpose of the club to make available to all visitors to Baguio every facility of indulging in every form of healthy recreation in a climate so well adapted to outdoor sport.

Temperate zone fruits and vegetables are available for the table at all seasons of the year. Strawberries are not only available during the summer months but are grown in the open all the months of the year.

The development of Baguio is in its first stage but there is every reason to believe that with better transportation facilities the country thereabouts will develop rapidly and with it the summer capital. Its value as a health resort cannot be estimated. Not only will it offer a place for recuperation equal to any resort abroad but it will keep the money hitherto spent in foreign parts in circulation in the Philippine islands.

O. F. CAMPBELL & CO., CONTRACTORS

The work of construction of the buildings being erected at Baguio is being largely carried on by Messrs. O. F. Campbell & Co., the well known firm of Manila contractors. In all, the contracts for this season amounted in value to over 50,000 pesos and most of this work is completed, while a number of contracts for residences have been closed and construction will begin at once.

The archbishop's residence, commanding a view of the Benguet road and the Baguio valley and within easy distance of the government center has been completed at a cost of about 10,000 pesos.

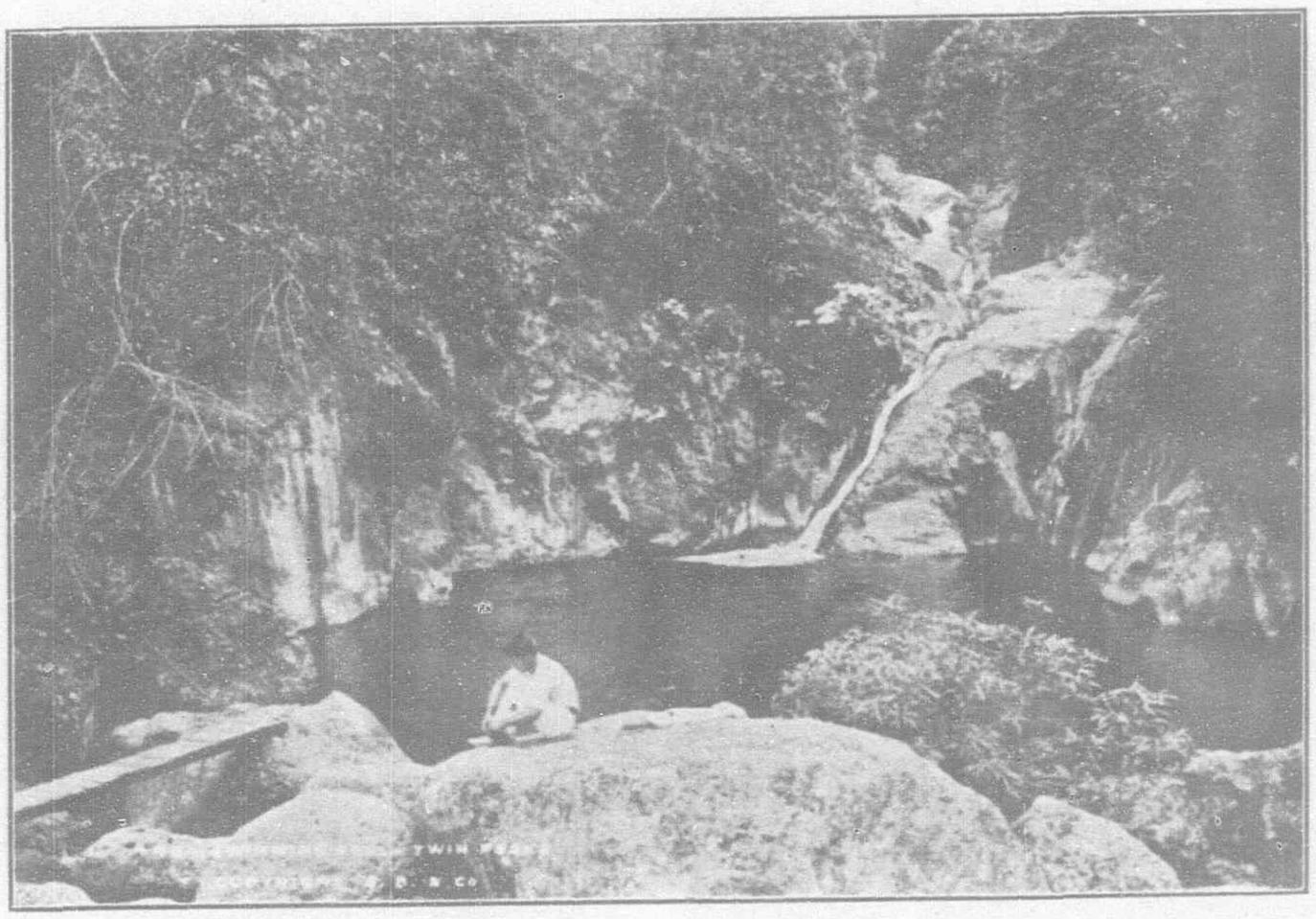
The Methodist Home, costing approximately 5,000 pesos, is also ready for occupancy, while the addition to the Hotel Pines has been occupied as bachelor quarters and cost about 5,000 pesos to complete.

The governor general's residence, the contract price of which is about 30,000 pesos, is now under way and the work is progressing as well as could be expected. Messrs. Campbell & Co. have overcome many natural obstacles with difficulty owing to the lack of proper facilities for transportation. The residence is being built on a delightful elevation overlooking Look-Out Point and to the northeast of the Country Club. The transportation of materials was overcome by a steam winch and gravitation. Especially difficult was the handling of the rock for the foundation and the first story.

Messrs. Campbell & Co. have installed a saw mill at Baguio for the supply of all the native lumber used in their contracts. The firm is looking forward to an unusual building boom before the season closes and orders for estimates are increasing, especially for residences to be built next season. Altogether the progress made in the development of Baguio since the completion of the road has been remarkable and the prospects for the future exceed the most sanguine expectations of the promoters of the hill city.

SUBURBAN RAILWAY CO.

The Suburban Railway Co. is continuing the construction of its line from Manila to the Mariquina valley. The Fort McKinley section, which was opened April 17, is doing an enormous passenger traffic, and as the line is opened up beyond the fort this will be greatly increased. The construction of the bridge at Pasig over the Pasig river has been delayed, as the steel has not yet arrived. The surveying and grading continue so that when the bridge is in place there will be no delay in laying the steel and putting the road in shape for operation.

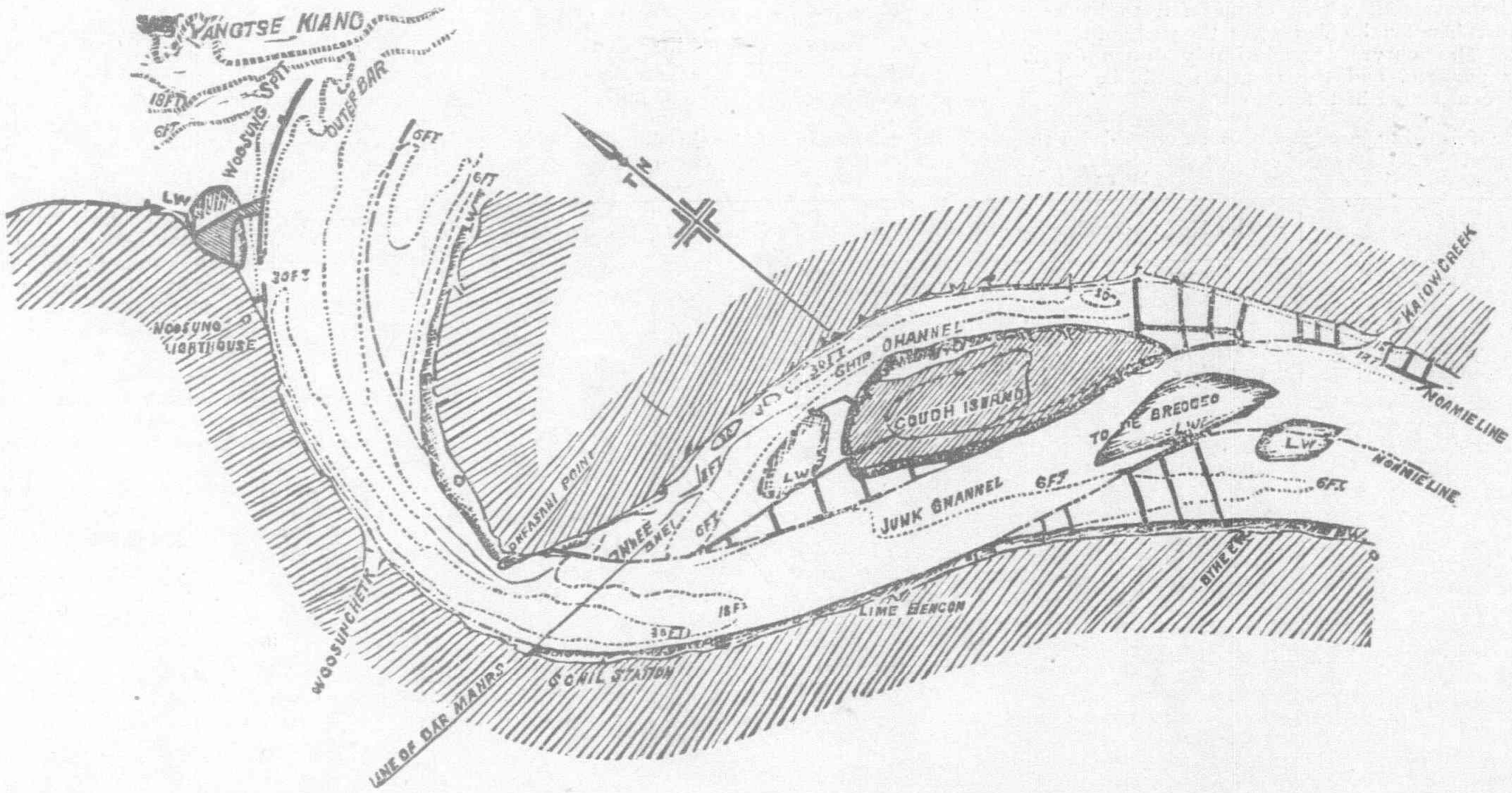


DELIGHTFUL SWIMMING POOL AT TWIN PEAKS, THE HALFWAY ON THE BENGUET ROAD

WHANGPOO CONSERVANCY CONTRACTS

In connection with the Whangpoo Conservancy Contracts, the Shanghai *Times* of recent date presents the plans and a description of the important work as undertaken by the convention, with the bids submitted for its completion. The *Times* says in part:

We have been favored with a complete set of papers, plans, calculations, tenders, etc., connected with this most important work. Before us there lie two complete specifications, together with the forms of agreement used in connection therewith, eight large blueprint sheets of engineering drawings showing precisely how the work proposed is to be carried out, a detailed map of the works in question showing the river from Gough Island to the Yangtse, and finally the form of tender together with the actual figures of the tenderers.



WHANGPOO RIVER IMPROVEMENTS

Specification No. 1 is divided into five portions: No. 1. Showing Plan of Training Works, Woosung Outer Bar. No. 2. Cross Sections of Jetty. No. 3. Details of Work Staging for Jetty. No. 4. Training Dyke at Prince's Wharf, Sea Dyke and Harbor Bunding. No. 5. End of Jetty and Details of a Crib.

There is a Jetty with a Crib, a Training work at Prince's Wharf, a Sea-dyke across over the spit and a bunding for the proposed Work harbor. For the purpose of this work Low Water level is reckoned from the new Datum-level which is two feet higher than the Zero line at the Woosung Inner Bar Signal Station.

Then follow instructions as to the material, to be employed. The "Wieps," for examples are to be ropes of brushwood, hard, tough, pliable and well branched, not thicker at the butt than 2½ in., and so on. These "Wieps," it is stipulated, shall at the time of use have tensile strength to stand the strain of six strong coolies pulling against another six. The next technical term we come to is "Zinkstuk," and this is defined as two gratings of "Wieps," one at the bottom and one at the top with a filling of brushwood between them. Precise instructions as to their construction are given in the specification. So with ballast stone, stone for the rubble mounds, for concrete and so on. Space forbids us from following the specification all through the careful details respecting gabions, piles, cement work concrete and the like. It is enough to say that everything seems to have been carefully considered down to the minutest detail.

The training work at Prince's wharf will be 600 ft. in length and 15 ft. wide, while the sea-dyke across the spit will be 1710 ft. long. This is intended to form a protection against wave-action round the Work-harbor, and therefore consists of a strong sea slope crowned by a sea-wall 17 ft. about low water. The building for the work harbor will be 540 yards long. The order in which the various portions of this specification are to be carried out are: 1. The completion of the jetty with crib, and of the training dyke. 2. The completion of the crib mentioned in section 32 and 3. The completion of the work harbor bunding. Prices per unit of work are given in detail.

Specification No. 2.

The work to be done under this specification consists of: 1. The dredging of a work harbor projected near Woosung Fort as shown on the plan. 2. The execution of dredging work in the Whangpoo between the Point Hotel and the confluence with the Yangtse River. 3. The depositing of the matter dredged at places to be pointed out.

The remainder of specification deals entirely with detailed discussion or instruction as to the manner in which the work may be performed.

Agreement No. I.—The first thing of importance is that the work shall be completed to the satisfaction of the Engineer in Chief in 36 months. The contractor shall be bound over in a certain sum and shall have a guarantor, work to be commenced within three months after the signing of the agreement, no work (except of necessity) being done on Sundays or Customs' holidays. Strict regulations are laid down as to quality of material, as to fines, payment and so on. The guaranty under this agreement is fixed at Tls. 60,000.

Agreement No. II.—It is similar in tenor to the foregoing but the amount of guaranty is fixed at Tls. 100,000.

THE WORK AS A WHOLE.

The foregoing is sufficient to show the sort of demands made upon the contractors by Mr. de Rijke, together with the manner in which their duties are to be performed. But to understand the subject as a whole it will be necessary to consult the map herewith and follow carefully the following description. Beginning, then on the Gough Is. side of the map it will be seen that there is traced a magnificent curve from the Gough I. side of the junk channel round through Pheasant

Point well out beyond a point opposite the Woosung Lighthouse. It must be remembered in connection with this line that the Junk Channel is to be dredged until it has sufficient water for any ships that come to Shanghai, and that when this is done the present ship channel is to be closed entirely. We have said that the line of the curve goes through Pheasant Point. That is correct, for the point is to be dredged away sufficiently for that purpose.

Turning now to the other (the Woosung) side, the line follows the present bank very closely indeed, and it is not till we come close to the Woosung Lighthouse that any new departure of importance begins. Here comes the beginning of the work for the new work harbor where, as stated above, there is 540 yards of bunding to be done followed by the sea-dyke across the spit to the length of 1710 ft.

There is every promise, if this work is done according to the plans before us, of a permanent improvement in the mouth of the river, an improvement which cannot fail to have a most beneficial effect upon the trade of the port. The curves are admirably drawn for their purpose, and the results should be all that can be wished for.

The prices named in the bids would indicate that the German company made the lowest offer for the dredging work, while the Japanese company is the keenest competitor for the embankment work. The following are the sums total for the complete contract as estimated by the *Shogyo Shimpo*, a Japanese paper, in commenting on the bids offered:

Cost of Embankment.		Cost of dredging per 100 cubic yards.
	Taels.	Taels.
Dutch contractors	2,138.000	42
German contractors	1,615.000	20
French contractors	1,697.000	—
Japanese contractors (Messrs. Okura and (Company)	1,500.000	13.25

The operations can not, however, be separated, since the material obtained by dredging has to be used for embanking, so that there is a standstill, unless the same contractors get the two jobs.

The following are the bids submitted by the different contracting firms in detail:—

Details of Tenders.

Tenderers	Tender No. 1	Tender No. 2	Tender No. 3	Tender No. 4	Tender No. 5
	Woosung Outerbar Training works. Sh. Tls.	Dredging work one million Taels Sh. Tls. per 100 c. y.	Dredging work two million Taels Sh. Tls. per 100 c. y.	Woosung Outerbar Training works (Sh. Tls.) † Dredging one million Sh. Tls. per 100 c. y.	Woosung Outerbar Training works (Sh. Tls.) † Dredging two million Sh. Tls. per 100 c. y.
Vering & Co. (German)	1,615,000	a.*—— 20 b. —— 22 c —— d. ——	a. —— 16 b. —— 16 c. —— d. ——	1,615,000 a. —— 20 b. —— 22 c. —— d. ——	1,615,000 a. —— 16 b. —— 18 c. —— d. ——
Galampoix (French)	1,697,261 conditionally (not à forfait)	——	——	——	——
Okura & Co. (Japanese)	——	——	——	1,500,000 a. —— 31,25 b. —— 31,25 c. —— 31,25 d. ——	——
Ten Bokkel Huinink, Korthals Altes and van Thiel de Vries. (Dutch)	2,187,798	a —— 43 b. —— 47 c. —— d. ——	a. —— 29 b. —— 33 c. —— d. ——	2,137,798 a. —— 42 b. —— 46 c. —— d. ——	1,997,798 a. —— 28 b. —— 32 c. —— d. ——

* a, b, c, d. These letters refer to four divisions of the work as detailed.

THE RUSSO-JAPANESE JOINT STOCK TRADING COMPANY

Some interesting particulars are given in the *Journal* of the American Asiatic Association concerning the Russo-Japanese Joint Stock Trading Company. The organization of this company is complete on the Russian side, owing to the efforts of M. Minkofsky, honorary consul for Japan, and the well-known Baron Ginsburg. The Japanese organization remains to be completed, but Mr. Shimomura is making strenuous efforts, which are expected to be soon crowned with success. He has obtained the co-operation of 67 leading Japanese merchants, who agreed to send Japanese products and manufactures for furnishing a bazaar in St. Petersburg. Meanwhile, M. Minkofsky had succeeded in forming an association with a capital of 1,000,000 roubles in 4,000 shares of 250 roubles each, its object being to promote the mutual exchange of commodities between the two nations. This company contemplates the establishment of Russo-Japanese stores in all the principal Russian marts, European and Asiatic alike, and possibly the ultimate establishment of a Russo-Japanese bank, should the development of the project call for such a measure. Mr. Shimomura is now working to form a corresponding company in Japan, and it is said that he has already secured the co-operation of many leading men of business.—*Japan Advertiser.*

LATE PUBLICATIONS

The Philippine Journal of Science for April contains several interesting articles as follows:

Clarke, C. B. Cyperaceæ of the Philippines: A list of the Species in the Kew Herbarium; Merrill, Elmer D. The Occurrence of Antiaris in the Philippines; Massee, George. Philippine Myxogastres; Christ, H. Cibotium Baranetz J. Sm., and Related Forms; Copeland, Edwin Bingham. Pteridophyta Halconenses: A list of the Ferns and Fern-Allies Collected by Elmer D. Merrill on Mount Halcon, Mindoro.

Modern Steam Engineering in Theory and Practice, by Gardner D. Hiscox, M.E., with several chapters on Electrical Engineering by Newton Harrison, E. E., has recently been issued by the Norman W. Henley Publishing Co., New York. This volume contains the latest information on steam engineering and devotes a large portion of space to economy and the application of steam power to the generation of electricity. The chapters devoted to electric engineering are of unusual interest. The volume contains over 400 illustrations. Cloth $3.00.

Modern American Lathe Practice, by Oscar E. Perrigo, M. E., a complete and valuable work on this important factor in the equipment of the machine shop, has been issued from the presses of the Norman Henley Publishing Co. New York. Cloth, $2.50.

McCluskie's Indian Directory and Guide for 1907, the successor of the Calcutta Directory and Guide, is one of the most complete compilations of information about India that has ever been issued from Calcutta. The publishers have taken the greatest care in revision and many new feattures of the greatest value to the publication have been added. The directory was compiled by E. T. McCluskie and published by the Baptist Mission Press, Calcutta. Price Rs. 8.

The Asylum Press Almanac and Directory of Madras and South India for 1907.—This valuable publication is in its 106th edition and excels in point of careful compilation and increase of scope, all previous issues. It will be found of the greatest value as a source of accurate information about South India and Madras.

NEW RUBBER COMPANIES

Subscriptions were invited on 21st inst. for 50,000 shares of the Sumatra Para Rubber plantations company, which has been formed, with a capital of £100,000, to acquire the Pangkattan Estate, on the east coast of the Island of Sumatra. The property is held under lease for 75 years from December, 1900, at a nominal rent of about 8d. per acre, and has an area of about 5,000 acres. It is stated that there are 72,500 rubber trees on the estate, of which about 30,000 have been planted since 1904. The crop of dry rubber for 1906 was 13,420 lbs., of which 7,904 lbs. was sold at an average of 5s. 4¾d. per lb., while the coffee crop realized £3,045. The output of rubber ought to be very largely increased during the current and subsequent years, and Mr. Thomas Boyd thinks that the lowest valuation that can be put on the estate is £90,000. The purchase price, however, has been fixed at £60,000, payable as to £40,000 in cash and £20,000 in shares, and the intermediary vendors apparently are not making any profit out of the transaction, their only remuneration being an option to acquire 20,000 of the unissued shares at par up till March 31, 1910. The applications for shares were so numerous that the lists were closed the same day.

The Kuang (Selangor) Rubber Company has been registered with a capital of £20,000 in £1 shares. To adopt an agreement with W. de Leighton Brooke for the purchase of 1,000 acres of land, near the forest reserve on the Kuang Penghalan Kundang road, in the district of Ulu Selangor, State of Selangor. No initial public issue. First directors (not less than three nor more than seven): R. Whitehead, G. E. Wike, O. W. Porritt, J. R. Crompton, and W. de Leighton Brooke. Qualification, £100. Remuneration as fixed by the company. Offices: 32a, Brown-street Manchester.—*Singapore Free Press.*

FAR EASTERN COMPANY REPORTS

MERCANTILE BANK OF INDIA

The Manager of the Mercantile Bank of India, Ltd., Calcutta, has received a telegram stating that the result of the last year's working of the Bank shows a net profit, including amount brought forward from the previous year of £90,801. The Directors will recommend at the yearly meeting a dividend on both "A" & "B" Shares of 3½ per cent, making, with the interim dividend declared to 30th June last, 6 per cent for the year. The Reserve Fund is to get £35,000, and the Officers' Pension Fund £2,000, leaving a balance of about £20,000 to be carried forward.

NATIONAL BANK OF INDIA

The report of the National Bank of India (Limited) for the year ended Dec. 31 shows a net profit of £192,600, and adding £69,065 brought forward, the available total is £261,665. An interim dividend at the rate of 12 per cent per annum, tax free, was paid for the half-year ended June 30, and £25,000 was added to reserve. The directors now recommend a further dividend at the same rate and an addition of £25,000 further to the reserve fund, raising it to £600,000, thus making it equal to the paid-up capital. They propose to write £10,000 off house property account and to add £7,500 to the officers' pension fund, leaving a balance of £122,165 to be carried forward.

THE MERCANTILE BANK OF INDIA, LIMITED

The net profits of the Mercantile Bank of India for the year ending 31st December last, including the amount brought forward, are £90,801. The Directors recommend paying a dividend at the rate of 3½ per cent (making 6 per cent for the year free of Income Tax) placing to Reserve Fund £35,000, to Officers' Pension Fund £2,000 and carrying forward £20,000.

HUNAN STEAMSHIP CO.

A general meeting of the shareholders of the Hunan Steamship Company was held at the Tokyo Bankers' Association on March 30 at 2 p. m., when a dividend for the second half of last year was declared at the rate of 6 per cent per annum.

BANK OF FORMOSA

The Bank of Formosa held the general meeting of its shareholders at the Bankers' Club, Tokio, for the year 1906. The following business report was then adopted:—

	Yen
Profit	247,503.399
Brought from previous account	59,568.130
Total	307,101.559
To reserve against loss	50,000.000
To dividend equalization fund	10,000.000
To special reserve	30,000.000
To bonus	15,000.000
To dividend (10 per cent per annum)	125,000.000
Carried forward	77,101.559

CHARTERED BANK

The Chartered Bank of India, Australia and China has announced a dividend of 13% for the year ending December 31, 1906. The directors have recommended an increase of capital to £1,000,000, £25 000 to be written off; £100,000 to be carried to the reserve fund and £93,000 carried forward as undivided profits. Of the new stock £200,000 will be offered to the shareholders at £40.

BANGKOK DOCK CO., LIMITED

At the annual meeting of the Bangkok Dock Co., Limited) a dividend of 12½% was declared and a bonus of 2½% directed paid the shareholders.

SHANGHAI AND HONGKONG WHARF CO , LIMITED

At the annual meeting of the shareholders of the Shanghai and Hongkew Dock Co. a dividend of Tls10 a share was authorized for the year 1906.

THE YANGTSZE WHARF AND GODOWN CO.

At the annual meeting of the Yangtsze Wharf and Godown Co. held at the company's offices Shanghai, March 30, a dividend of 18% was authorized for the year 1906.

THE CHINA LAND AND FINANCE CO., LTD.

The fourth annual general meeting of shareholders in the China Land and Finance Co., Ld., was held at No. 13A Canton Road, Shanghai, March 27. Mr. R. Macgregor was in the chair, and shareholders were present representing 6,340 shares. The report and accounts as presented were accepted and passed; the appointment of Mr. King Chun-kee as a director was confirmed. Mr. R. Macgregor was re-eleted a director, and Mr. A. R. Leake auditor of the Company; and it was resolved to pay a dividend of 10 per cent on capital (absorbing Tls. 32,125), to place Tls. 10,000 to Reserve account, and to carry forward Tls. 4,393.30 to new account.

WATKINS & CO., LIMITED

The annual meeting of Messrs. Watkins, Limited, Hongkong, was held on March 30th. Mr. G. A. Watkins was in the chair and there were also present Messrs. A. R. Lowe, Chow Hon Wah and Chan A Fook. In his speech the Chairman referred to the lean year experienced and pointed out that substantial amounts had been written off assets. During the year a profit of $9,596.10 had been made; salaries and wages have been reduced by $5,000; charges account by $5,000; and sterling liabilities were $6,000 less than last year. The Chairman was sorry he could not pronounce that dividend warrants would be issued. The next annual meeting would take place in May instead of March. The report and accounts were adopted.

YANGTSZE INSURANCE ASSOCIATION

At the general meeting of the shareholders of the Yangtsze Insurance Association held April 26th the Directors recommended the payment of a dividend of 20 per cent, and the placing of $50,000 to the credit of reserve fund.

CHINA IMPORT AND EXPORT LUMBER CO., LTD.

At the last annual meeting of the shareholders in the China Import and Export Lumber Co., Ltd., a dividend of 10% was declared, $20,000 transferred to Reserve Fund; and $17,210, carried forward to this year; after paying all expenses.

CHINA-BORNEO CO., LTD.

The following is the report presented to the shareholders of the China-Borneo Company, Ltd., at the fourth ordinary yearly meeting held on Saturday, 27th April:—

The General Manager and Consulting Committee beg to present to the shareholders the fourth ordinary yearly report of the Company. The accounts show a profit of $12,028.64. The Consulting Committee recommend:—To write off Launches and Lighters, $5,000; to write off Kudat Pier, $2,000; to write off House Property, $1,500; to write off Talaga Saw Mill, cost of removal, $720; and to write off Timber Concessions, $2,808.64—$12,028,64.

TOKIO MARINE INSURANCE CO.

The annual report of the Tokio Marine Insurance Co., Ltd., states that the balance in hand at the beginning of the year was 3,650,689 yen. The revenue amounted to 1,692,456 yen, the claims and losses to 315,159 and the expenses to 195,403 yen. There remained a balance of 1,181,893 yen to which had to be added 369,568 yen. A dividend at the rate of 24 per cent was declared, and a total balance of 3,090,158 carried forward. The local agents of the Company are the Mitsui Bussan Kaisha.

CHINESE ENGINEERING AND MINING CO.

The following is the report of the China-Borneo Company (Ltd.) submitted April 27:

Gentlemen:—The General Manager and consulting committee beg to present to the shareholders the fourth ordinary yearly report of the company. The accounts show a profit of $12,028.64.

The Consulting Committee Recommend:—To write off Launches and Lighters $5,000.00; To write off Kudat Pier $2,000.00; To write off House Property $1,500.00; To write off Talaga Saw Mill, Cost of Removal $720.00; To write off Timber Concessions $2,808.64; Total $12,028.64.

THE SHANGHAI TUG AND LIGHTER CO., LTD.

Report of the directors for the year ending 31st December, 1906:

The Directors herewith submit a statement of the audited Accounts for the year ending 31st December, 1906, showing at the credit of Profit and Loss Account the sum of Tls. 60,827.06, after the payment on the 4th August, 1906, of an Interim dividend of 3½ per cent on Preference Shares, Tls. 17,500.00 and 5 per cent on Ordinary Shares, Tls. 50,000.00.

This sum of Tls. 60,827.06 now remains for appropriation and the Directors recommend that it be distributed as follows:

	Tls.
To a Final Dividen of 3½% on 10,000 Preference Shares	17,500 00
,, a Final Dividend of 3% on 20,000 Ordinary Shares	30,000.00
,, be carried forward	13,327.06
	60,827.06

THE CHINA LIGHT AND POWER CO., LTD.

The following is the report that has been presented to the shareholders of the China Light and Power Company, Limited, Hongkong, at the Sixth Ordinary General Meeting held at the Office of the General Managers Wednesday, April 17, at 11 o'clock a. m.

Annexed we have the pleasure to lay before shareholders a statement of accounts for the year ending February 28, 1907. The gross profit amounts to $79.966.66, and the net profit including the amount brought forward from last year, and after payment of interest and other charges amounts to $46,459.10 which it is proposed be written off as depreciation. The result is an improvement upon the previous year but our income at Canton was seriously reduced by fires in the months of October and November which burnt out a number of our customers. The high price of coal and the heavy loss in exchange on small coins in which most of our accounts are paid, have also adversely affected our profits.

SHANGHAI PULP AND PAPER CO.

The annual report and accounts of the Shanghai Pulp and Paper Co., Ld., for the year 1906, states that the profit and loss account, including the balance, Tls. 1,753.03, brought forward from last year, shows a credit of Tls. 65,906.20. During July an interim dividend of five per cent was declared and paid. New additions and repairs during the year 1906, amounting to Tls. 7,051,380, have been written off, as well as Tls. 2,500.00 for depreciation, besides setting aside Tls. 8,000.00 for reserve, bringing reserve account up to Tls. 45,000.00. From the balance, Tls. 25,854 82, to the credit of profit and loss account, the directors propose to pay a final dividend of five per cent, carrying forward Tls. 3,354.82 to new account. The plant continues to be kept in perfect order, and is working most satisfactorily.

JAPANESE SPINNING CO.'S DIVIDEND

The following annual dividends have just been declared by Japanese spinning companies: The Godo mills of Osaka, 20 per cent, and 10 per cent special, which only take up half the profits for 1906; Kanegafuchi mills, 20 per cent, out of over 60 per cent earned; Tokyo mills, 50 per cent; and the Home and Foreign Cotton Trading Company of Osaka 15 per cent.

UNION INSURANCE SOCIETY OF CANTON, LIMITED.

Report for presentation to the Shareholders at the Thirty-fourth Ordinary Meeting to be held at the Society's Offices, Hongkong, at noon on Saturday, the 13th April, 1907.

The Board has now to lay before the Shareholders a balance sheet containing a summary of the property and liabilities of the Society on the 31st December 1906 and a statement of accounts to the same date.

1905 Account.—After payment of the interim dividend of $30 per share and the bonus of 20 per cent to Contributors passed at the last annual meeting there remains a balance of $835 290.64 as per annexed statement.

The Board recommends that this sum be appropriated as follows:—

A final dividend to shareholders of $12 per share on 10,000 shares.	$120,000.00
An addition to the Sterling Reserve Fund of £30,000 @ exchange 2/3 3/16	264,827.59
To be carried forward to Underwriting Suspense Account to close the account for the year 1905.	450,463.05
	$835,290.64

KYOTO COTTON FLANNEL CO.

The Kyoto Cotton Flannel Company, Kyoto, Japan, paid 30 per cent dividend and proposes to increase its capital from $800,000 to $2,500,000.

TEXTILE MANUFACTURING CO., LTD.

The ordinary general meeting of the shareholders of the Calcutta Textile Manufacturing Company, Limited, was held on the 13th instant. It appears from the audited balance sheet and profit and loss account for the year ending 31st December, 1906, that the company made a net profit for the year of Rs. 5,19,171 which with the previous balance of Rs. 3,426 amounts to Rs. 5,22,598. Out of this amount, the directors had declared and paid an ad-interim dividend for the half year ending 30th June, 1906, on 2,800 shares at Rs. 40 per share absorbing Rs. 1,12,000, and had transferred to engine and machinery deterioration fund account, Rs. 1,11,223; to repairs fund account, Rs. 46,606; to reserve fund account, Rs. 54,000; and to equalization of dividend account, Rs. 54,000; leaving a net balance of Rs. 1,44,768. Out of this amount the directors declared a further dividend at the rate of Rs. 45 per share, absorbing Rs. 1,26,000 and carried forward Rs. 18,768-11-11 to new account.

BOMBAY DYEING AND MANUFACTURING CO.

The ordinary general meeting of the Shareholders of the Bombay Dyeing and Manufacturing Company was held on the 6th instant. The audited balance sheet and profit and loss account for the year ending 31st December 1906, show a net profit for the year of Rs. 181,455-7-5 which, with the previous balance of Rs. 6,608-2-3, amounts to Rs. 1,88,063-9-8. Out of this amount, the directors had declared and paid an ad-interim dividend for the half year ending 30th June 1906 on 4,800 shares at Rs. 12-8-0 per share, absorbing Rs. 60,000, and had also transferred to machinery deterioration fund Rs. 14,527-11-10; repairs fund Rs. 17,751-2-0; reserve fund Rs. 12,000—total: Rs. 1,03,678-13-10, leaving a net balance of Rs. 84,384-11-10. Out of this they declared a further dividend at the rate of Rs. 17-8 per share, absorbing Rs. 84,000, and carried Rs. 384-11-10 to new account.

SIAM STEAM PACKET CO.

At the annual meeting of the Siam Packet Co., a dividend of 8% for the year ending December 31, 1906, was declared. This dividend on the increased capital is estimated as being equal to 12½% on the old capital.

HODEN KEROSENE OIL CO.

The dividend of the Hoden Kerosene Oil Co., Nagaoka, Niigata prefecture, for the last half of 1906, was at the rate of 40 per cent per annum.

LANGKAT OIL CO.

The following information has been received from the Sumatra Director and Manager of the Maatschappij tot Mijn-Bosch-en Landbouwexploitatie in Langkat, Ld.:—

Daily aggregate output of Crude Petroleum	Gallons	110,000
Crude Petroleum in Tanks at date	,,	170,000
Kerosene made since the date of the preceding half monthly telegram.....	Cases	99,000
Kerosene shipped since the date of the proceeding half-monthly telegram.....	,,	43,000
Kerosene in Stock at Refinery at date.....	,,	110,000

PERLAK PETROLEUM CO.

The Perlak Petroleum Company—a venture in Acheen—distributed, a few days ago, a dividend of 28 per cent on its preference shares.

SHANGHAI WATERWORKS, LTD.

At the annual meeting of the shareholders of the Shanghai Waterworks Company, Ltd., a dividend of 40/ a share on the old issue of stock and 19/2 on the new was declared. The transfer to the Reserve was 30,000Tls. and Tls.96,088.56 was carried forward to new account.

SETUL HYDRAULIC TIN MINE.

The following is the condensed account of the company's meeting.

"This Company held its first Annual General Meeting at Seremban on Monday the 25th March, when the Report and Balance Sheet for the year ending 31st December, 1906, were presented and passed and the usual re-election of Directors and Auditor took place.

The Chairman, in reply to queries from shareholders, said that good progress had recently been made with construction work, and he hoped that, barring accidents, the water would be through to the Mine, and sluicing work commenced in about ten days from date. With regard to the issue of $20,000 fresh capital, raising the total capital of the Company to $150,000, he was quite confident that this would provide ample funds for all purposes. Reference being made to a proposal from another local Mining Syndicate to amalgamate with them, the Chairman stated that an offer of this kind had been made, but that, apart from the terms being considered inadequate, the bulk of the Setul Company's members were against the idea.

RUBBER COMPANY REPORTS

A London telegram says:—The Shelford Rubber Estate Co. has declared no dividend.

A Colombo contemporary says:—The Shelford Rubber Estate, Ltd., is an F. M. S. concern. It is too young to pay a dividend; but they have a nice property of 604 acres, with 536 acres planted. The Company expected to get 10,000 lb. of rubber last year but up to September the actual crop was 4,569 lb. of dry rubber for the nine months.

BLACKWATER ESTATE (KLANG) RUBBER CO., LTD.

The second ordinary general meeting of the shareholders of the above Company was held at the Office of the Agents and Secretaries (Messrs. Skrine & Co.), Colombo, on March 23, when the Hon. Mr. W. H. Figg (Director) presided and there were present Messrs. H. Goodwyn (Director), W. Shakespeare, A. E. de Silva, and R. Weber representing the Agents and Secretaries.

The Chairman moved the adoption of the following Directors' report:—

Directors:—The Hon. Mr. W. H. Figg, Mr. F. L. Clements, and Mr. H. Goodwyn.

The yield of Para rubber during the year was 13,033 lb. against an estimate of 10,000 lb. and the crop was sold at an average net price of R3.68 per lb. The profit as per account to 30th June was R9,407.95 and at 31st December it stood at R25,936.89, equal to 14⅓ per cent on the paid up capital of the Company, but the Directors have reduced it to R18,657.53, writing off the whole of the Preliminary Expenses, amounting to R7,279.36. They now recommend the payment of a dividend of 10 per cent=R18,100, and that the remaining R557.53 be carried forward.

FEDERATED MALAY STATES RUBBER CO. (LTD.)

The Board of Directors of the Federated Malay States Rubber Company, Limited, have decided on the payment for the current financial year of an interim dividend of 5 per cent on the capital called up. This dividend will be payable on and after March 15, 1907.

THE BEERLAC (SELANGOR) RUBBER CO.

At the annual meeting held at the company's offices April 3, a dividend of 5% was directed paid and R1,274.48 was carried forward.

JEBONG RUBBER CO.

The report and accounts of the Directors of the Jebong (Perak) Rubber Co., Ltd., were submitted at the first annual general meeting of shareholders in Colombo:—

The Directors have pleasure in submitting their first report and accounts of the Company for the year ended 31st December, 1906.

The crop of rubber secured was 58,670 lbs. of which 52,038 lbs. have been sold in London at a net average of slightly over 5/1d. and the balance, consisting of one invoice, has been estimated to realize 5/- net. The Nursery Account shows a profit of Rs. 48,820.35 of which Rs. 21,120, derived from the sale of stumps, as representing part of the capital value of the estate when taken over by the Company, has been credited to Capital Account, and the balance from sale of seed, Rs. 27,700.35, has been credited to Working Account.

The expenditure on Working Account on an average rate of exchange of Rs. 176 to $100 amounted to Rs. 55,498.32 and the cost of production F. O. B. Penang to 94.58 cents of a rupee.

After payment of Directors', Secretaries', and Auditor's fees and commission to the Superintendent (the whole of whose salary has been charged to working expenses), the balance of profit on the year's working amounts to Rs. 179.6;5.84 equal to 14.9 per cent on the paid up capital of the Company. An interim dividend of 5 per cent was paid in October last, absorbing Rs. 60,000 and the Directors now recommend the payment of a final dividend of 7 per cent, making 12 per cent for the year placing Rs 30,000 to Reserve Fund to meet expenditure during the current year on clearings not yet in bearing, and carrying forward tho balance Rs. 5,675.84 to the current season's account.

RUBBER IN BORNEO.

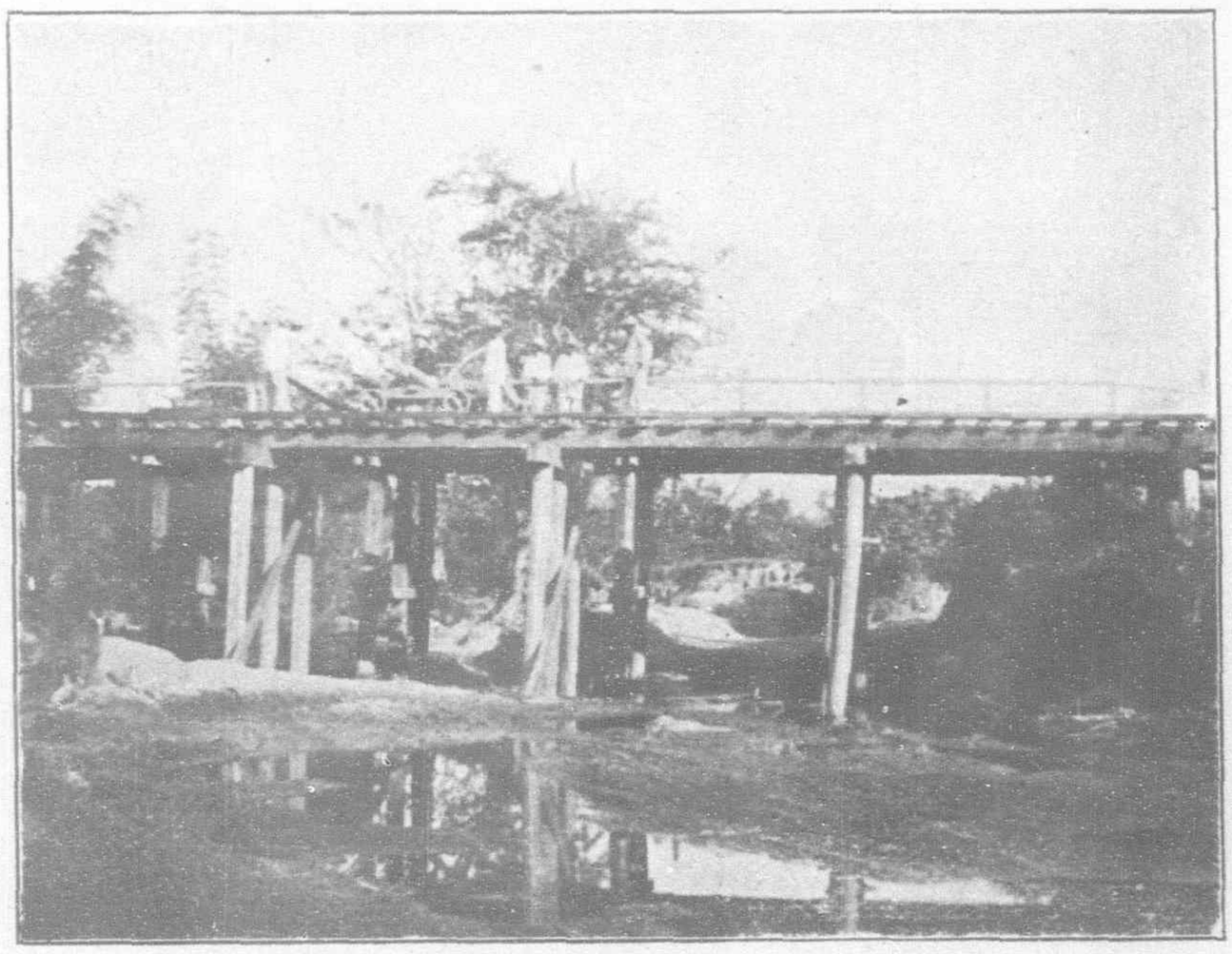
In the report of the commissioner of lands for British North Borneo it is stated that the following is a list of the lands sold to Rubber Companies.

	acres
The British Borneo Para Rubber Co.	3,000
The Manchester N. Borneo Rubber Co.	13,000
The Langkon Borneo Rubber Co.	12,000
The Tenom Borneo Rubber Co.	10,000

The last named company has changed its concession at Tenom for an equal area near Beaufort on the railway. The Manchester Co. at Melalap have already prepared and planted up a fine area.—*Singapore Free Press.*

RAILROAD CONSTRUCTION IN THE PHILIPPINES

The Manila Railway Company has been actively engaged during the last three months on all its concessions in Luzon, and already about seventy miles have been graded, while the steel has been laid to some extent on several of the new lines and branches.



TARLAC RIVER BRIDGE ON THE PANIQUI—CAMILING RAILROAD

On the Dagupan-San Fabian section of the line to San Fernando de Unión, a distance of approximately 10 miles, the grading has been completed and the steel laid for about three miles. Work is now in progress on the bridges and other permanent construction in connection with the laying of the steel on the balance of this section.

The branch from San Fabian to Camp One has been surveyed and there is prospect that work on the road bed will begin in earnest next month.

The line from San Fernando de Pampanga to Florida Blanca by way of Guagua, a distance of 14 miles, has been graded and is now almost ready for the steel.

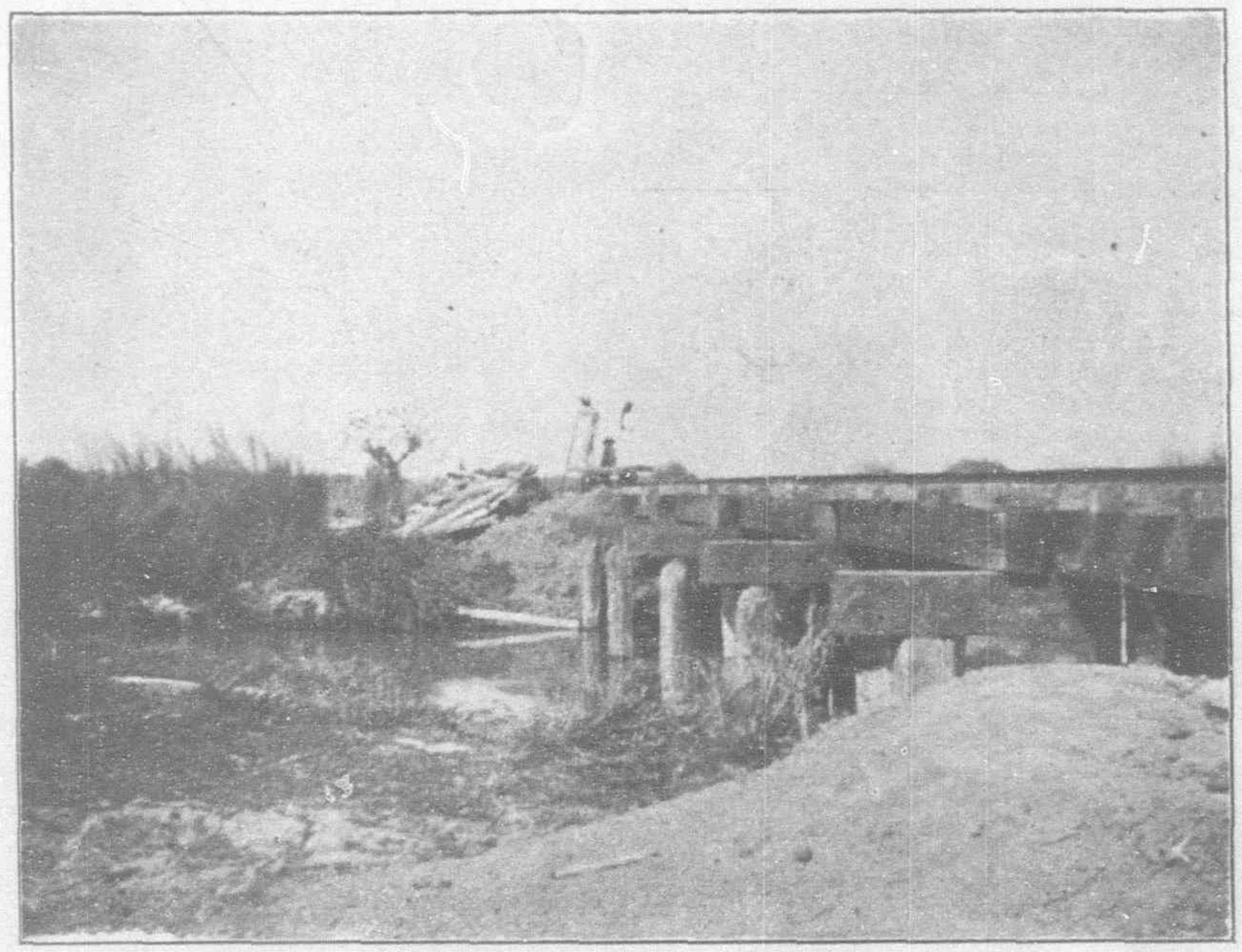
The line from Manila to Batangas as far as Calamba has been the scene of activity. The distance is thirty miles, one-third of which is graded and the work progressing favorably. It is expected that track laying will begin there next month.

On the Cavite branch of the system, one-third of the line to Naic has been graded, the principal part of the work having been done on the section between Manila and Las Piñas. No work has yet been done on the loop to San Francisco de Malabon although the surveys are under way.

On all the other projected lines in Luzon the company has been active making surveys and these will in many instances be completed shortly. Material is arriving from time to time and there is prospect that the work of construction will not be delayed on account of shortage in supplies, although some difficulty was anticipated in the matter of the supply of steel.

PHILIPPINE RAILWAY CO.

The construction work on the Philippine Railway Co. lines continues in Cebu and Panay with the usual expedition. During the month seven miles of steel have been laid in Cebu, making in all about ten miles of track. Of this, six miles have been laid south of Cebu to the gravel pit and four miles on the line running north and in the yards in Cebu. The grading in Cebu extends approximately over 30 miles of the Cebu roads, of which 23 miles are to the north, towards Danao. The Company expects to discharge 4,000 tons of railroad material at Cebu May 12. Of this shipload consigned to that point, there are 3,000 tons of rails, the balance consisting of machinery, supplies and equipment. All this cargo will be utilized in the construction work in Cebu.



BRIDGE WORK ON THE PANIQUI RAILROAD

The work in Panay is also progressing rapidly. No steel has been laid beyond Jaro during the month. The grading continues and approximately twenty miles will be ready for the steel as soon as the temporary bridges are completed.

The company will have sufficient steel on hand to lay track for at least 80 miles in all when the cargo of materials is discharged May 12.

The standard plans and specifications for shops, round-houses, stations, etc., have gone forward to the governor general for his approval. These buildings will be of the most modern construction and built with special reference to sanitation.

Vice-President Poland, of the Philippine Railway, Chief Engineer Beard in charge of construction, and Supervising Railway Expert Goodale sailed for Cebu May 4, on a fifteen day tour of inspection of the different lines.

TARLAC RAILWAY CO.

The Tarlac Railroad, which connects Paniqui, a station on the Manila and Dagupan Railroad, and Camiling, Tarlac province, was formally opened to traffic May 7. This line is twelve miles in length and taps one of the richest agricultural districts in Northern Luzon. It is estimated that this year over 20,000 tons of produce will be carried over this line and already on that part of the line now under operation over 3,000 passengers are carried daily.

The company consists of local capitalists. Arrangements have been entered into with the Manila and Dagupan Railway for the operation of the road in regard to transportation, while the Tarlac Railway provides for the up-keep of the track. It is reported that the Manila and Dagupan Company is to receive 50% of the receipts for the use of the rolling stock.

The construction of this line was accomplished in about five months. The Manila Construction Co., under the direction of Harry G. Thurber, constructing engineer, had the contract and the work was pushed in order that the road might be completed in time to handle this year's crop.

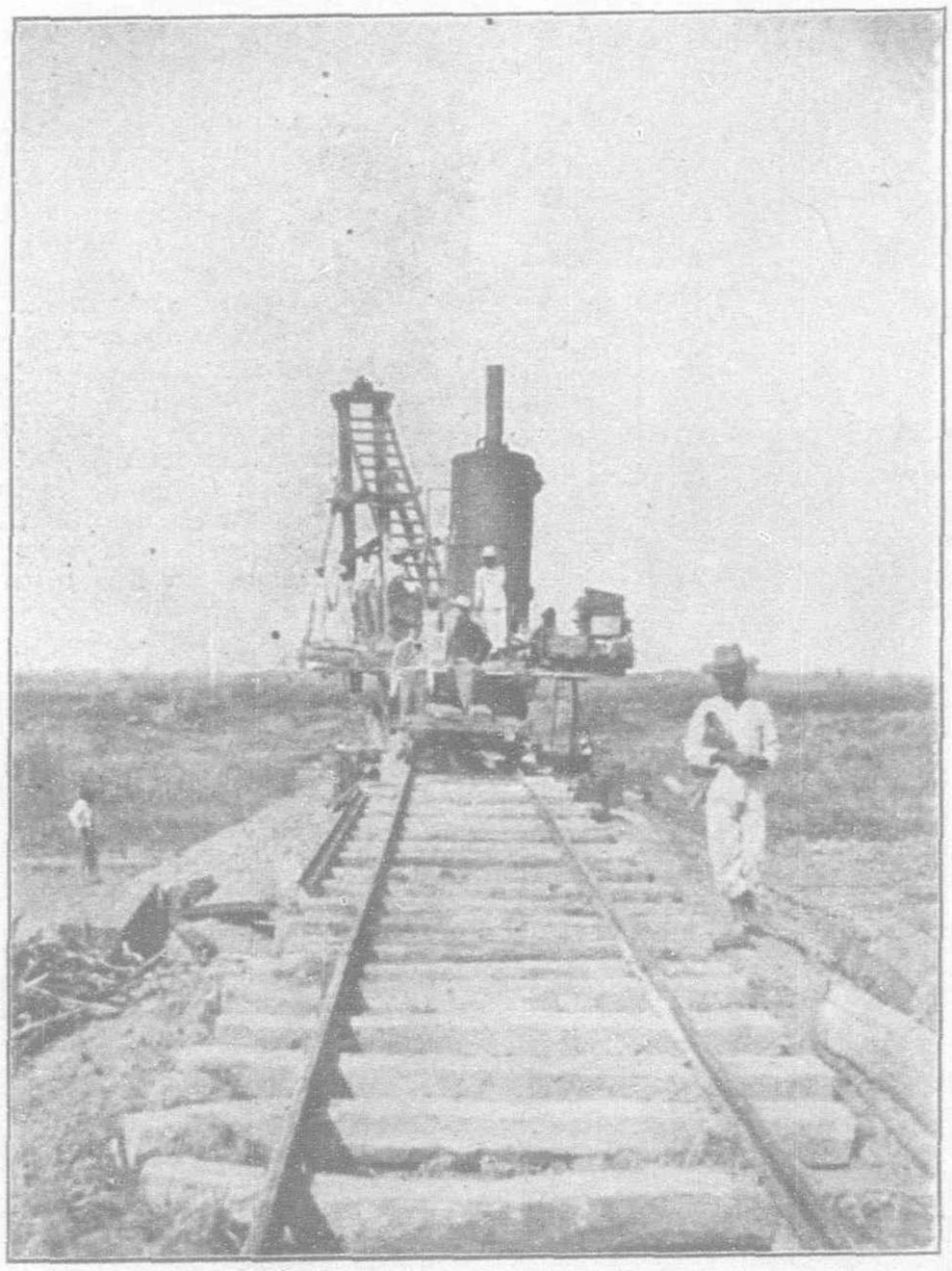
In all there were over 4,000 feet of bridging, the largest bridge being constructed over the Tarlac river. This bridge is 1,400 feet in length.

Paniqui, the point on the Manila Dagupan railway which serves as the junction for this new line, is about 87 miles north of Manila, and Camiling, the west terminal of the road, is situated at the head of the Camiling valley. This valley is one of the richest in the Philippines and half of these rich lands awaits the progressive farmer who hitherto hesitated invading this promising field on account of the lack of transportation facilities. Now that this has been overcome by the construction of this road, the area of land under crop will be doubled next year. The saving in transportation cost to the farmers is about ₱2.50 a ton.

The Commission is still considering the application for a franchise presented recently by the Lepanto Mining Co. for the construction and operation of a railroad from the immense copper mines in Lepanto to the West coast of Luzon. It is understood that the franchise will be granted with a few restrictions so as to prevent a monopoly of any passes in the mountain districts.

PUBLIC IMPROVEMENTS IN THE PHILIPPINES.

Messrs. J. G. White & Co. have concluded their contract for the harbor improvements at Iloilo. The contract price for the work was $2,250,000 and included the dredging of the river for 7,000 feet to a witdh of 350 feet and



PILE DRIVER IN OPERATION AT END OF THREE MILE FILL ACROSS THE TARLAC BOTTOMS

deep enough to accommodate the largest vessels calling at that port. A river wall over 7,000 feet long was also constructed and the mud taken from the river and harbor was utilized to fill in a made ground extension behind the river wall.

The improvements in the harbor of Cebu the contract price of which was $500,000 will be completed in September of this year. In building the wall in Cebu concrete is being utilized which promises much stronger construction. The dredging will be greatly expedited by the transfer of the dredger heretofore used on the Iloilo harbor construction. Messrs. J. G. White & Co. are the contractors.

The United States Engineer's office awarded the contract for the delivery at Olongapo of 50,000 barrels of cement to Messrs. Findlay & Co. of Manila, the lowest bidder. The price is $2.73 delivered at Grande Island near Olongapo. The other bidders were Messrs. German & Co. and Messrs. Anderson & Co., both of Manila. Findlay & Co. handle the Alsen brand.

THIRTY THOUSAND BALDWIN LOCOMOTIVES.

Early in February the 30,000th locomotive to be built at the Baldwin Locomotive Works was completed. The event was celebrated by flying a great white pennant bearing the number over the office of the company. The engine was a huge freighter built for the Pittsburg, Shawmont and Northern Railway for service chiefly as a "helper" on heavy grades. Its weight is about 288,000 pounds exclusive of the tender. Including the tender its weight is about 458,000 pounds. It has single cylinders, 28 by 32, and is fitted with a superheater in the smoke-box. The superheater is of novel construction, designed by S. M. Vauclain. It has 4,796 square feet of heating service. This is very large. The boiler is wagon top, 78¾ inches in diameter. The firebox is 9 feet long by 6½ feet on the inside. There are five pairs of drawing wheels, each 57 inches in diameter, and there is a "pony" truck, with small wheels front and back. The capacity of the tank is unusually large—8,500 gallons.

On February 7, John H. Converse, president of the Burnham, Williams Co., which operates the works, gave to newspaper men the following interview:

"I have seen the production of about 28,000 of the 30,000 locomotives turned out in these shops," said President Converse. "When I came here in 1870, although the works had been in operation about thirty-seven years, only 2,000 locomotives had been constructed.

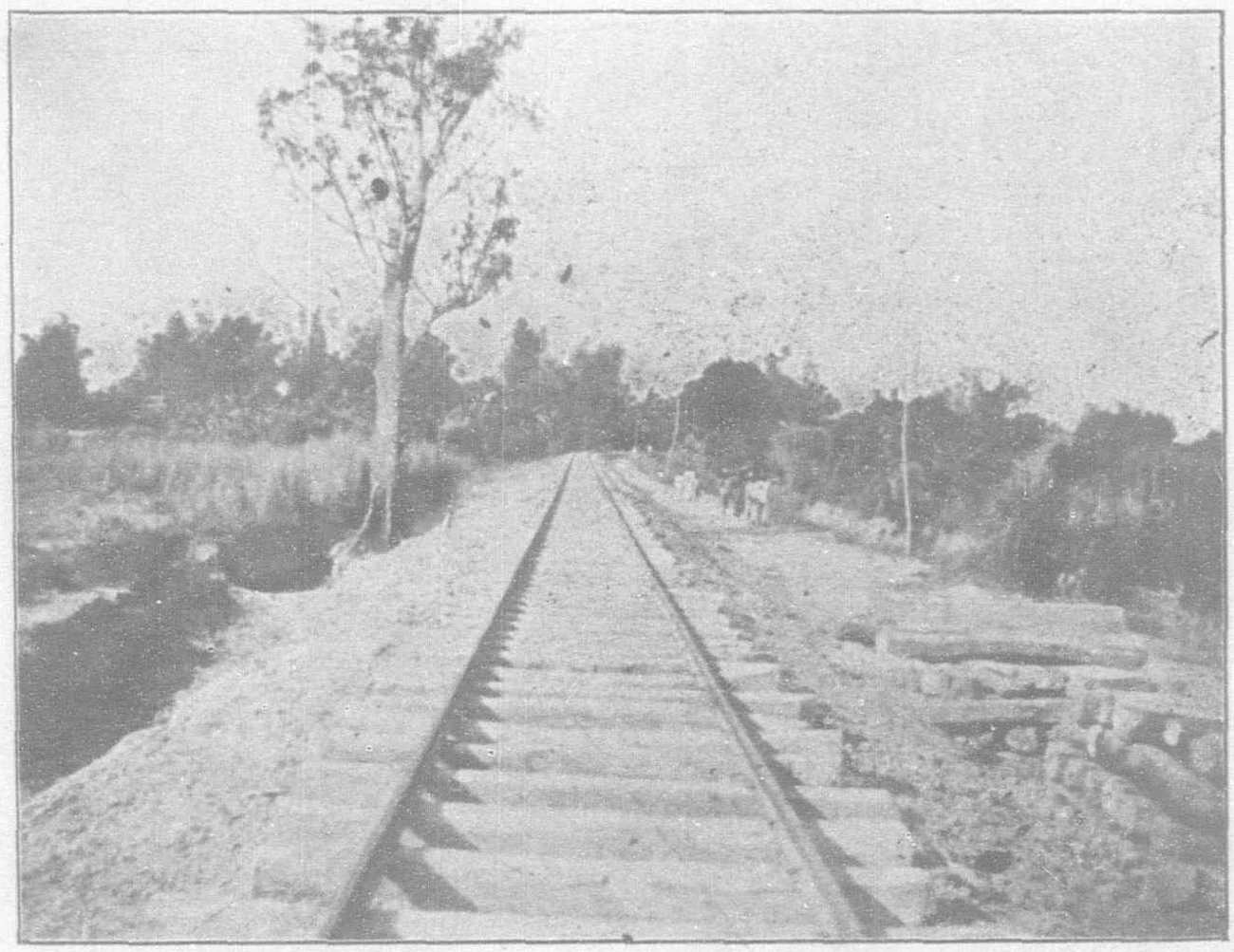
"It was the ambition of the management when I joined it to get the output up to one locomotive a day, or 300 in a year, and that was accomplished about 1872. Since then the capacity has steadily increased till now it might be placed at nine locomotives a day. In 1870 the concern employed 1,200 men. The employes of the Baldwin Locomotives Works in this city and at Eddystone, near Chester, now number 19,200."

RAILWAY EXTENSION IN CEYLON.

Reuter's agency is informed that the Ceylon Chamber of Commerce has telegraphed to the Ceylon association in London urging the early construction of the Ratnapura Railway, the Passara extension, and the Mannaar Branch Railway, all of which are necessary in the interests of the colony. The Mannaar extension is to link up the northern railway of Ceylon with the southern railway systems of India, the Straits of Mannaar being traversed by a ferry. It is claimed that with this extension the whole of the trade of southern India would find an outlet at Colombo. The Ratnapura and Passara extensions are concerned with new lines in the tea-planting districts of Ceylon where they are needed to replace cartage. The recent development of rubber in these districts makes the extensions essential.

TRADE-MARKS IN CHINA.

The Anglo-Japanese Gazette is the authority for the following statement: An arrangement has been concluded between the British Government and the Russian Government providing for the mutual protection of British and Russian trade-marks in China. In future a British subject whose trade-mark, duly registered in Russia, has been infringed by a Russian subject in China will be able to obtain redress from the Russian consular tribunals, and similarly it will be open to a Russian subject whose trade-mark, duly registered in Great Britain, has been infringed by a British subject in China, to take proceedings against the latter in the British court. Similar arrangements already exist between the Governments of Great Britain, Denmark, France, Germany, Italy, the Netherlands, Portugal, and the United States.



SECTION OF THE PANIQUI—CAMILING RAILROAD NEAR PANIQUI

THE SANTA MESA CEMENT TILE AND PIPE FACTORY

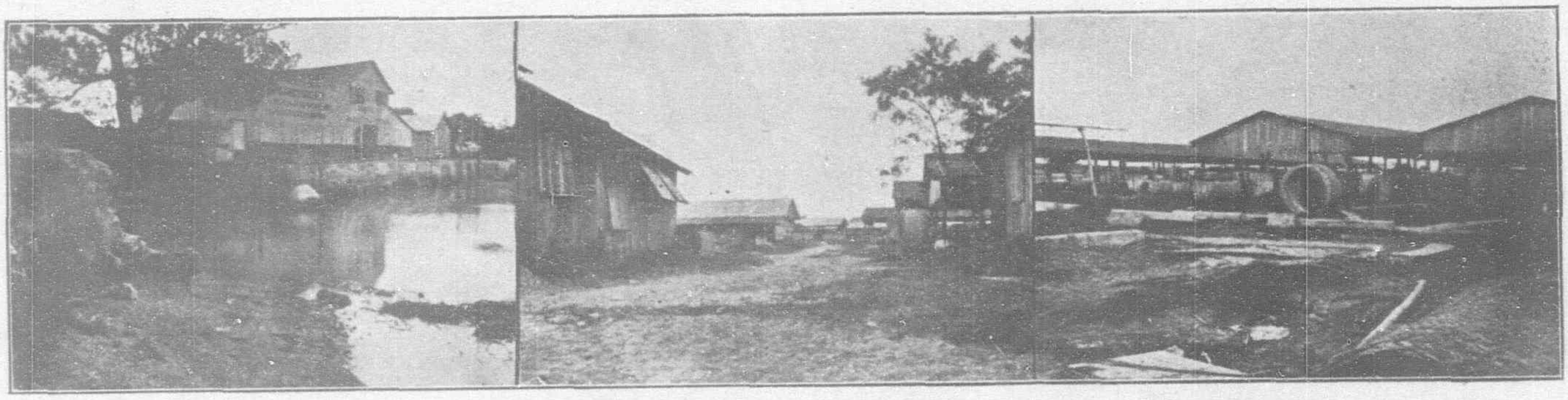
The first factory to be established in the Orient for the manufacture of cement tile and pipe was the one that today bears the name of The Santa Mesa Cement Tile and Pipe Factory, situated on the bank of the Pasig River at Santa Mesa, Manila. This institution was founded by Mr. Carl Fressel in 1886, and he continued as proprietor until his death in 1904. When first opened it was situated on the Santa Mesa Road, but was later transferred to its present site, in order to have the benefit of water transportation, by Mr. G. Ludewig, the actual manager.

The site on which the present modern plant stands covers an area of 24,000 square meters comprising in all thirteen buildings sufficiently large to give plenty of space to the several departments into which the works are divided.

One building is set aside for cement colors with a mixing room attached where all the material is made available and the work in the department carried on with despatch.

The carpenter shop, which occupies another building, is equipped with all the necessary modern machinery so that all the construction work connected with the factory is greatly expedited.

Besides these two buildings there are three press shops each with a large store room for tiles; one shop equipped with a motor press and motor for same together with a polisher utilized in finishing marble construction; a shop with a large hydraulic press for power and heat; one warehouse for mouldings, four pipe camarines where the finished product is stored, and besides all these buildings there are two large cement brick factories.



VIEWS OF THE SANTA MESA CEMENT TILE AND PIPE FACTORY

With this splendid equipment the works turn out daily 7,000 tiles, 6,000 bricks and 1,000 meters of different sizes of pipe. In all the different classes of work this enterprising firm uses only the very best material and gives it the most careful supervision.

The cement and colors are all first class and imported direct from the German manufacturers so that the output may be depended upon as being of first class quality.

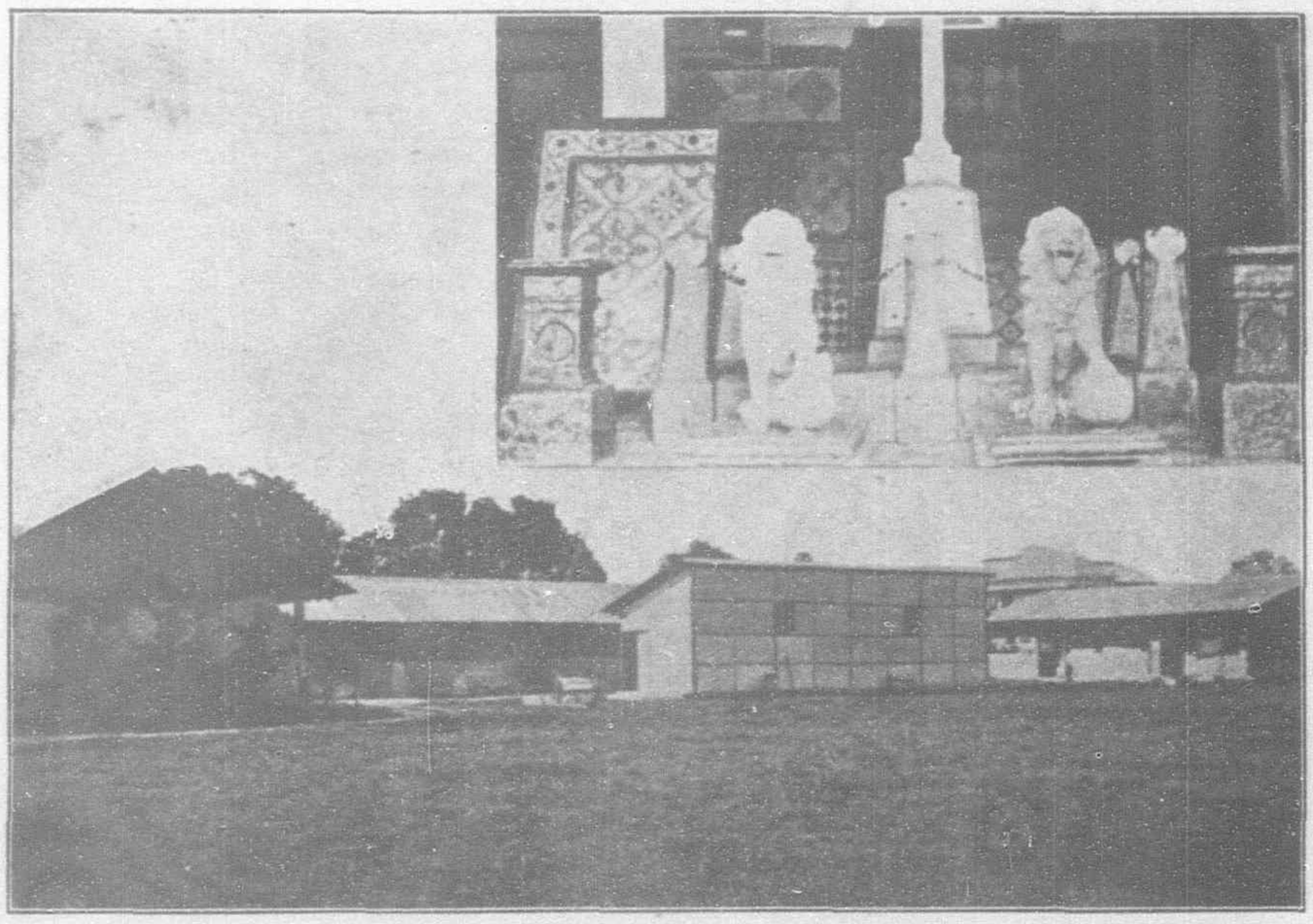
In addition to the manufacturing feature contracts are undertaken by the Santa Mesa Cement Tile and Pipe Factory for all kinds of cement construction, one special feature of which is the supplying of imitation marble tiles and doorsteps and other ornamental construction in which cement is utilized.

This factory furnished the Philippines Telephone Company the cement conduits for the construction of the subways for the cables, a total of 50,000 cable feet. As an indication of the capacity and expedition with which this contract was handled all the material was supplied in 20 days.

So effective has been the service of this well established manufactory that its product is used exclusively for all public and private work in the Philippines. This is the best testimonial of the high standard of the product.

In addition to the general recognition given this factory it was awarded the gold medal at the Philippine exhibition held in 1895.

Cement bricks are not more expensive than other bricks and may be made in any colors. The hollow compressed are especially adapted to the tropics, the air chamber keeping out all heat. For house building these bricks cannot be equalled for strength and durability while coolness, which is so desirable in the tropics, is ever assured.



ANOTHER VIEW OF THE SANTA MESA CEMENT TILE AND PIPE FACTORY WITH SAMPLES OF WORK

One advantage of the cement brick that appeals to the householder is the tenacity with which it retains its color, and this does away with the necessity of painting a house in the construction of which this brick is used exclusively. The brick is carefully polished so it may be easily washed and still retain its brightness.

The bricks turned out by this factory are of the American Standard viz: $8 \times 3\frac{7}{8} \times 2$ inches.

KOBE HARBOUR IMPROVEMENTS

The growth of trade at the port of Kobe has advanced so rapidly during the past few years that the Government have at last been compelled to face the problem of providing for the necessary facilities for the handling of the increasing volume of cargo which annually passes through this part. Dr. Sakatani, Minister of Finance, when addressing



Sketch of Kobe Harbour.

a meeting of prominent commercial men in Kobe lately expressed the opinion that it was most essential that some improvement should be made in the means of communication between Tokyo, Seoul and Peking, and Kobe made the centre for such facilities. The present scheme, upon which operations will commence early in the New Year, includes the construction of a further breakwater from Wada Point, while the breakwater shown on the sketch plan given below will be extended to meet it, thus forming a harbor of considerable dimensions. The whole of the present Bund and the greater part of Kaigan Dori will then be transformed into jetties and wharves. Similar operations will be undertaken at Hyogo, where the water front will be reclaimed, and wharves extended as far as the Kawasaki Dockyard Company'sworks.

The estimated expenditure and revenue is shown below:

	Expenditure. Yen.	Revenue. Yen.	Fees. Yen.	Profits Yen.
West Onohama and Hyogo. Reclamation Works at East Onohama.	21,790,000	2,250,153	320,000	1,930,155
Entire Works at East Onohama.	10,700,000	599,313	155,000	444,313
Total. . . .	32,490,000	2,328,216	435,000	1,892,216

The work comprises the following:—

1.—An area will be reclaimed from the sea at the western part of Onohama, and one long jetty, 1,620 feet in length and 360 feet in width, and three shorter jetties, each 1,200 feet in length and 360 feet in width, will be constructed. The jetties will have roofing on both sides and will be equipped with electric lighting and 130 powerful cranes. A railway will connect the jetties with the existing line (there will be some 22 miles of railway in all). A portion of the reclaimed area will be reserved for the erection of godowns

2.—At the eastern part of Onohama, about 110,000 tsubo of land will be reclaimed from the sea. A jetty of 1,680 feet in length and 360 feet in width, and a shorter one, about 900 feet in length and 690 feet in width, will be constructed. These jetties will be roofed and equipped in a similar manner to those at the western part of Onohama.

3.—A breakwater, 3,240 feet in length, will be constructed off Onohama.

4.—In the direction of Hyogo two iron piers, 420 feet in length and 60 ken wide, will be constructed, together with a landing place of six hundred feet. The piers will have roofs and will be equipped with cranes, etc. A railway line three miles in length, will be laid for the purpose of connecting the piers with the branch of the Sanyo railway. The works here will chiefly accommodate Chinese and Korean shipping.

The construction of the works at Onohama will take eight years, while the Hyogo proposals ase expected to be completed in four years.

DOCKYARDS AT MOJI

It is said that the concession obtained by Mr. Noda, M. P., Mr. Sasaki, M. P., Mr. Mitsui, M. P., and others, for the construction of a big dockyard at Okubo, Moji, with a capital of -Y-5,000,000, will be purchased by Franco-Belgian and Anglo-Japanese Syndicates. The Syndicates are reported to be making arrangements to construct a dockyard on a much bigger scale than was contemplated, the capital being raised to -Y-10,000,000, half of which would be allotted to each syndicate. According to present plans, the dockyard will have accommodation for vessels of over 15,000 tons. It is further said that the Director of the Oriental Glass and Brush Factory at Osaka, representing the Franco-Belgian syndicate, arrived at Moji, accompanied by an engineer from Shanghai, a few days ago, and at once commenced a survey of the coast. Whether or not the Syndicates will really undertake the enterprise is still somewhat uncertain as yet, but it is reported that in any case the prospects of the dockyard scheme are very bright. In the event of the dockyard being constructed, it is intended that a railway shall be built between it and Moji harbor for the purpose of obtaining coal and other necessaries. Okubo will consequently be opened to general traffic and a branch of the Moji Customhouse will be established there. Should the project be realized, it is anticipated that the Mitsu Bish Dockyard at Nagasaki will be considerably affected.

THE HARIMA DOCKYARD COMPANY

The docks of the lately established Harima Dockyard Kabushiki Kaisha, which has a capital of -Y-500,000, are located at Aioi village, Akao district, Hiogo prefecture. They are at present two in number, the larger being 430 feet and the smaller 280 feet. The depth of water in the Bay at the lowest tide is five fathoms. There is excellent protection from storms, the island of Iyejima lying at the entrance of the Bay and serving as a natural breakwater. The dockyard is a little over two miles south of Naba Station on the Sanyo railway line and about 20 miles from Kobe by sea. By rail, it can be reached from Kobe in about three and a half-hours. The construction of a big dock of 600 feet is now in contemplation.—*Kobe Herald.*

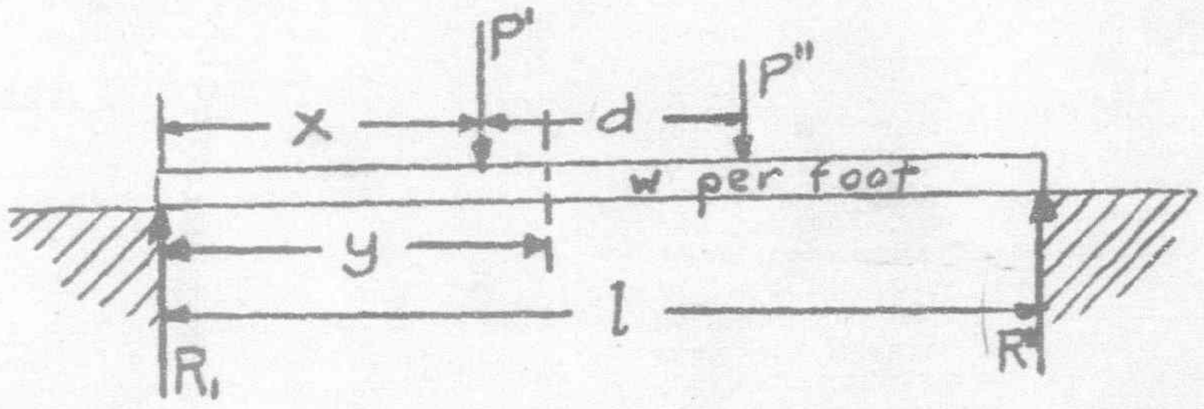
SMOKELESS POWDER MACHINERY FOR CHINA

Consul T. J. Albert, of Brunswick, advises that a German firm, which manufactures centrifugal machinery for sugar production and also makes a specialty of machinery for the manufacture of smokeless powder, has just shipped to the Chinese state powder factory Hanyang, at Hankow, a complete nitrate plant for the manufacture of smokeless powder. Hankow is situated in the interior of China, on the Yangtze Kiang River, about 600 miles from Shanghai. The plant occupied 13 double cars. This is the third nitrate plant which this firm has delivered to the Chinese national factories. Smokeless powder is manufactured from gun cotton by the last set of machinery shipped, the cotton being steeped in a mixture of saltpeter and sulphuric acid.

A LIVE LOAD SPECIFICATION FOR HIGHWAY BRIDGES

By JOHN HOWARD FORD
San Fernando, Pampanga, P. I.

In the design of small highway bridges the determining factor is in most cases the live load produced by a passing road roller or traction engine, consisting of two concentrated loads at a fixed distance apart. For such a specification the critical location of the loads may be determined as follows:



Let P′ and P″ be the concentrated loads, P′ being the larger;
w the dead load per unit of length;
l the clear span;
d the fixed distance between P′ and P″;
x the distance from the nearest abutment to P′;
y the distance to the critical section;
R′ and R″ the abutment reactions; and
M the maximum bending moment.

Then M occurs under P′, where

$$x = y = \frac{2P'l + 2P''l - 2P''d + wl^2}{4P' + 4P'' + 2wl}$$

and $M = \frac{wly}{2} + \frac{P'y^2}{l} + \frac{P''y^2}{l} + \frac{wy^2}{2} + \frac{P''dy}{l} + P'y + P''y$

Proof: Take moments about R″

$$R'l = \frac{wl^2}{2} + P'(l-x) + P''(l-x-d) \qquad (1)$$

$$M = R'y - \frac{wy^2}{2} - P'y + P'x \qquad (2)$$

Substituting (1) in (2)

$$M = \frac{wly}{2} + P'x - \frac{P'xy}{l} + P''y - \frac{P''xy}{l} - \frac{P''dy}{l} - \frac{wy^2}{2} \qquad (3)$$

By inspection of Fig. 1, it is seen that y cannot be less than x; and, for $d < -\frac{1}{2}$, x must have a positive value. Inspecting (3), it is seen that M is a linear function of x; hence the maximum value of M must lie in a limiting plane intersecting the M-X plane, either x=y or x=0. But P′ is the larger load; hence x=0 cannot give maximum. Therefore, the maximum will lie in the plane x=y. Making x=y in (3) and differentiating,

$$\frac{dM}{dy} = \frac{wl}{2} - \frac{2P'y}{l} + P'' - \frac{2P''y}{l} - \frac{P''d}{l} - wy + P' = 0 \qquad (4)$$

$$y = \frac{2P'l + 2P''l - 2P''d + wl^2}{4P' + 4P'' + 2wl} \qquad (5)$$

For P′=P″ and w=0, (5) becomes

$$y = \frac{l}{2} - \frac{d}{4}$$

for values of d up to $d = (2 - \sqrt{2})\, l = .5861$

FILIPINO LABOR FOR MEXICO

Judge Paul W. Linebarger, who served as United States District Judge in the Philippines, has recently been in Mexico City on his way to Washington, where his resignation, recently tendered, will probably be accepted by the government, in the event of which he may settle in Mexico.

He has for five years been associated closely with the Filipinos, and he says that in his opinion they are much under-estimated by the Americans. He has found them sober, more or less industrious, devoted to their families, and easy to deal with when they are treated respectfully and handled wisely. Like all Orientals, they are quick to take offense, but easy and tractable when handled wisely. Judge Linebarger says that they are essentially Oriental, and that the Spanish rule has left no such mark of language and blood as it has in Mexico. This is due, he says, to the fact that when the islands were conquered by the Spaniards they were very sparsely inhabited, and that there was never the inducement to keep them that there was in the rich, civilized and well-developed countries like Mexico, Cuba and the South American kingdoms. The mark which the Spanish have left on the islands is comparatively a slight one, and although the language of society and business is Spanish, the natives have their own dialects, which must be used with them always.

Nevertheless, the Judge says, the Filipinos are ready for sympathy with the Mexicans and other Spanish-Americans, not only because they have had to deal with kindred peoples, in the higher classes of the islands, but because they know Mexico as the country where their money comes from, for the Mexican peso is the standard of exchange all over the Orient.

CLIMATIC CONDITIONS SIMILAR.

"The United States," Judge Linebarger says, "cannot offer inducements that will bring the Filipinos to that country. The climate is not pleasant to them. The American laborer does not want the Oriental, and in the field of skilled labor he would have too severe competition. Mexico, on the other hand, offers every inducement. Her climate is almost the same as that of the Philippines, and the hot countries of the coast and the port towns on both the Gulf and the Pacific sides are particularly pleasing in prospect for the Filipino. Every inducement and welcome is held out to the immigrant here, and the vast undeveloped resources of the country are always an attraction. Then as far as I can see, the manufacturing industry of the country is latent as yet, and when the great industrial awakening comes, as it inevitably must, there will be a great opportunity for skilled artisans and shopmen. The Filipino makes a good mechanic—one of the best in the world—and the opportunities for him here in that line should be great.

"Other races and peoples have been tried here, I understand, and with little success. I believe that the Filipino would solve the labor problem, and, as that solution, would be very welcome here in Mexico. He is a proud Oriental, though, and must be approached diplomatically. Some effort has been made to induce him to go to Hawaii, but but with little success. He must be reached through his fellows, and the Americans who have been in the Philippines long enough are the men who must take up that work. But I believe that Mexico is a great country for the Filipinos and that the Filipinos will be of much benefit to Mexico."

ORIENTAL TRADE FOR MEXICO.

Commerce with the Orient, Judge Linebarger says, is the great future for Mexico. And the Philippines are the open door to that commerce.

"The Mexican dollar is the trade coin of fifty million Oriental people," he continued, "and the very name of Mexico means solid credit and an honest deal to them. There was never a greater opportunity offered any people in the world than Mexico has had, and still has. The Orient is largely an agricultural section. Mexico is much the same, as yet, but her future as a manufacturing country is assured by wise laws and careful supervision. Everybody is busy, and all have fine opportunities for investors. Soon Mexico will be ready to export manufactured articles, and to the Philippines, straight around the torrid zone, is not far, as ships move in these days. Kindred people and the same language offer an open door. China and Japan are but a step from Manila. I believe that through that door the great trade of the Orient, or a comfortable slice of it, will come to Mexico as soon as she is ready to receive it."

COTTON GROWING IN KOREA

The prospect for cotton in Korea, from reports received, seems most promising. Experiments made this year resulted in producing 400 pounds per acre or about twice as much as the average production in the United States. The bureau of agriculture and commerce of Japan has submitted estimates and claims that there are 175,000 acres of waste land in Korea suitable for the culture of cotton and that the yield per annum should be at least 50,000,000 pounds. If the industry proves the success promised by the estimates made, the cotton produced in Korea will be sufficient to meet the demand in Japan for the raw article. Referring to the prospects for cotton in Korea, the *Anglo-Japanese Gazette* says:

"We now learn that the first crop has just been gathered near Mokpo. This land was planted with American upland cotton seed from the experimental grounds in Japan by the Kankoku Menkwa Kwaisha, who have succeeded the Cotton Growers' Association, under whose auspices the first experiments were made.

"At present only some 175 acres have been placed under cultivation, and this year's crop consists of 100 bales, weighing 50,000 lbs. The crop has been purchased by the Osaka Godo Boseki, and they report that the fibre is fine and soft, with exceptional lustre, and well suited for mixture in the spinning of fine yarn. The value is estimated at Y31 per picul.

"The Company intend to extend the area of the ground under cultivation, and anticipate a crop of 1,000 bales next season, and of some 10,000 bales the following year. Careful investigations have been recen tly made by experts from the Department of Agriculture and Commerce, and it is estimated that if all the waste land and inferior agricultural land suitable for cotton growing in Korea be put under cotton, some 175,000 acres could be thus cultivated, giving a yield, taking the present year's crop as an average one, of 100,000 bales, or 50,000,000 lbs. Experiments made this year have given a crop of 400 lbs. (three piculs) per acre, which is about twice the average crop of cotton in the United States per acre. This would appear incredible were it not for the following points. The crop has been worked with Korean coolies without any sparing of labor, and, in fact, is highly, not as in the case of the American crop, roughly cultivated.

"It is, naturally, obvious that large areas in Korea could not be cultivated in the same painstaking manner, and the results of this year would not be likely to be realized when cultivation on an extended scale takes place. The importance to Japan of the introduction of cotton culture into Korea is great. If Korea can be made to produce anything like 100,000 bales of upland cotton per annum half the present consumption by Japanese spinners of American imported cotton would be grown in Korea."

PENANG TO BUILD TRAMCARS

The Penang Municipal Commissioners have decided to try building a tram car locally. The cost complete at Home is £602, and £90 has to be paid for freight. They think they can build a similar car here with native wood for about $2,000 and the equipment from Home would come to about £350. Authority has been given to try the experiment. $2,000 is about £250, which added to the £350 for equipment makes £600, which is not much below the Home price, assuming that cost of freight of the equipment has been taken into account. We doubt whether the margin of saving is sufficient to justify the experiment, all things being considered. While all in favor of local industries being encouraged, it is obvious that for specialties like tramcars, the local trade cannot hope to compete with the Home firms. The work, of local wood, is not unlikely to be inferior; a certain establishment will have to be created if the work is done departmentally, and if the establishment needs justification, the experiment will have to pay for that. When once an establishment is created, Government or Municipality, we in Singapore have experience of how rapid is its growth, and how difficult is retrenchment. It may be contemplated in Penang to give out the tramcar construction to some firm. That would be less harmful to the taxpayers' interests than doing it departmentally. But till we see the Singapore Tramway Co. constructing its cars locally we should feel inclined to doubt the wisdom, from an economical point of view, of Penang doing it.—*Singapore Free Press.*

JAPAN-CHINESE RAILWAY AGREEMENT

The Japan-Chinese Railway agreement was signed at Peking April 15, and consists of eleven clauses, of which the important ones are as follows:—

1.—China shall redeem the Mukden-Hsinmintun Railway, the price being 1,600,000 yen.

2.—A half of the necessary capital for constructing a railway between Kirin and Chiangchun should be borrowed from the Japanese South-Manchurian Railway Company.

3.—The terms of loans of the Mukden-Hsinmintun and Kirin-Changchun Railways are to be 18 and 25 years respectively.

4.—If the loans are not repaid at the end of the term the whole property of the said railways shall be transferred to the South Manchurian Railway Company.

5.—The railways are not to be mortgaged as security to other countries.

6.—The Chief Engineer and the Chief Accountants should be Japanese subjects.

EARNINGS OF THE TOKYO RAILWAY

The *Mainichi Dempo* publishes figures showing the gross earnings of the Tokyo Railway during the 15 days ended April 3rd. which may be regarded as the 15 opening days of the Exhibition. The figures are:—

	Yen.
20th March	14,832
21st ,,	16,055
22nd ,,	14,358
23rd ,,	12,237
24th ,,	16,222
25th ,,	11,819
26th ,,	17,085
27th ,,	13,148
28th ,,	18,057
29th ,,	16,182
30th ,,	17,254
31st ,,	18,403
1st April	11,986
2nd ,,	20,304
3rd ,,	22,126

During these 15 days there was much inclement weather, and the state of the climate has a great effect upon travel in Tokyo. The gross earnings for the 15 days amounted to 240,000 *yen*, which is at the average rate of 16,000 daily as against the previous average of 13,000. It is expected that after the 10th, when the weather gets warm and the flower season commences, the gross earnings will amount to 30,000 *yen* daily, but that appears to be a slightly optimistic estimate. At any rate if the Company's electric-lighting enterprise proves at all successful, the dividend ought soon to rise to at least 11 or 12 per cent.

SINGAPORE AND SIAM'S RAILWAY DEVELOPMENT

Burma has now decided on the survey of a railway line to the Siamese border, and the hope is expressed that the Siamese government will run a short line westwards to join up with the projected Burmese railway to Myawadi. As a matter of fact Siam may fairly be regarded as having taken the initiative in this matter. In last year's budget a sum of Ticals 1,450,000 was provided for the Sawankaloke line, a branch westwards from the Northern Line which is the main item in Siam's programme of railway construction. It is true this branch does not go a great way, and one cannot expect that there will be any haste shown in continuing the branch to Raheng and on to the frontier. The line will be constructed in time, however, and it is something that a start has been made. Action on the part of Burma, it must be remembered, is also sure to be very leisurely; the railway connection will provide a stimulus to trade, no doubt, but big returns are not to be expected in the immediate future from such lines. The *Singapore Free Press* looks forward to Bangkok having direct connection with Rangoon and to residents here taking Rangoon as the regular port of embarkation for Europe. But we do not think the existing connection with the Straits is so likely to be severed. The Peninsular Railway will presumably be constructed before the Sawankaloke branch approaches Burma, so that in that uncertain future when the main railway lines are completed Penang is much more likely to take the place of Singapore than is Rangoon.—*Bangkok Times.*

JAPANESE SUBSIDY APPROPRIATION

The total amount of subsidy for the encouragement of Japanese shipping, which was included in the general estimates of the Government for the fiscal year of 1907-8 was 325,000 yen. The greater part of the above amount will be appropriated for the encouragement of the steamship service between Tsuruga and Vladivostok. The Oya Shosen Kaisha's steamer Amakusa Maru of 2 519 tons, which was formerly the ferry boat Amur, belonging to the Chinese Eastern Railway Company, will be entitled to receive a subsidy. She is a ship of 14 knots so that she is capable of covering the distance between Tsuruga and Vladivostok in 38 or 40 hours.—*Japan Advertiser.*

KABUL COALFIELDS

The coalfields of Kabul lie in Ghorband to the north of Kabul and northwest of the Paghman range. They are some forty miles from the Capital. A tramway or, better still, a light railway would suffice; for the country, though mountainous, does not present any serious engineering difficulties. There is already a military road running through Ghorband, and fairly good gradients should be obtained. If coal is worked it will result in the development of the industries at Kabul, and will facilitate operations in the Military factories, which have been seriously handicapped by want of fuel.

FAR EASTERN SYNDICATE

Vernacular papers state that a number of French and Belgian capitalists have organized a large syndicate with the object of undertaking various enterprises in Japan, China and other countries in the East. The French capitalists consist of the Paris Bank, the Holland Bank and the Paris Bankers' Association, while the Belgian capitalists include the Eastern Bank, another bank and other influential financiers. The syndicate will be represented by two agents in Japan, with offices at Uchisaiwaicho, Kojimachi-ku, Tokyo. Baron Shibusawa, Mr. T. Nagamori and some other business men will act as advisers. The syndicate is prepared to invest capital in all manner of lucrative enterprises and is especially desirous of not only furnishing loans to already established Japanese companies, but of undertaking business in cooperation with Japanese capitalists in already established or newly promoted companies. It is said that the first scheme of the syndicate is to establish an iron foundry near Osaka at the recommendation of Mr. Matsuaka, Minister of Agriculture and Commerce, and other persons. Several banks interested in the syndicate are reported to have invested capital in various industrial businesses in China and Japan before the organization of the present syndicate. One of the agents for Japan has been engaged in brush and glass manufacture at Osaka for several years past. The capital of the syndicate is said to be a hundred million yen, to be increased after the development of the business.

COLD STORAGE IN JAPAN

Cold Storage, an innovation in Japan until within the last two or three years, has now become a recognized necessity there. One merchant firm in Yokohama has within a year past installed cold storage for the preservation of perishable comestibles, among which are Canadian dairy products. A joint stock company also has entered upon the field on the ground of public accommodation, and has made such progress as to assure facilities for the next warm weather.

A joint stock company is being formed at Tokio, also, with a capital of a million yen, the chief line of its prospective business being to supply Tokio with fresh fish more satisfactorily than at present. The plan is to have the steamers conveying fish from the northern ports equipped with cold storage, whence the fish products will pass into cold storage upon landing, thus preserving the flavor of the fish.

JAPANESE MINING INDUSTRY

According to the report of the Imperial Mining Bureau of Japan the increase in capital invested in mining during the year 1906 in that country as compared with any former year amounted to Yen 79,000,000, and one remarkable feature of mining operations for the year was the great progress made in the introduction of the most modern and technical machinery and advanced processes, so that today the best possible results are being obtained at all the great mineral belts in Japan.

Some idea of the magnitude of the mining operations may be gathered from the following statement made by Chief Isohe of the mining bureau in an interview published in the *Jiyu Tsushin:*

"Last year applications for trial mining were increased by 120 per cent. The product of coal amounted to 13,250,000 tons, that is, an increase of 1,710,000 tons as compared with the previous year, and the product of copper amounted to 61,600,557 pounds, an increase of 5,415,420 pounds. Kerosene oil amounted to about 1,510,000 *koku*, an increase of 320,000 *koku*. The product of iron outside that manufactured by iron works amounted to about 50,040 tons, and 3,200 tons steel, an increase of 3,000 tons. Antimony amounted to 880,000 pounds refined and 160,000 pounds sulphate, an increase of 560,000 pounds for the former and 4,000 pounds for the latter. The product of gold decreased by 250 pounds, silver also decreased by 14,641 pounds. The total value of the product of various metals during last year amounted to *yen* 97,860,000, an increase of *yen* 24,310,000 as compared with the previous year. The number of mining companies newly established during last year is fifty-nine whose capital amounts to *yen* 37,610,000. Those companies increasing capital were nine, the total amount of increased capital being *yen* 18,925,000. Other companies whose objects are to transport or refine minerals newly established or increased capital to the extent of 22,500,000 *yen*."

THE TIMBER INDUSTRY IN MANCHURIA

Mr. Hayashi, Japanese Minister to Peking, paid a visit to H. E. Viceroy Yuan Shih-kai at Tientsin for the purpose of conferring with him regarding the formation of a Chino-Japanese Syndicate for felling lumber on the Chinese side of the Yalu river in Southern Manchuria. The proposed syndicate is to have a capital

of Tls. 5,000,000 to be equally subscribed by Japanese and Chinese timber merchants and others in the two countries. According to a recent joint petition presented to the Chinese Chamber of Commerce at Tientsin by the Chinese timber merchants there, the Chinese portion of the capital has already been subscribed by them for developing the vast lumber trade in South Manchuria. The capital is to be increased to Tls. 10,000,000 if the timber business proves prosperous in future. The Japanese Minister is consulting the Waiwupu at present about the drawing up of the necessary regulations for the proposed syndicate, which is to be managed by an equal number of Japanese and Chinese Directors with equal powers, in order to avoid disputes in future. H. E. Chao, Tartar-General of Fengtien, has wired to the Waiwupu stating that, as the timber enterprise is in South Manchuria, the Chinese timber merchants at Mukden and other places are willing to take part in the trade in the same way as their colleagues in Chihli Province, so that they may share the profits. In view of the increased demand for timber for railway, building and other purposes in the various parts of China at the present moment, the proposed syndicate will surely prove a most profitable concern in course of time if supplied with sufficient capital. It is said the matter may be settled in the not distant future between Japan and China.—*Japan Advertiser.*

AUSTRALIAN WOOL.

The wool season in South Australia in 190 was one of the best on record. There is an increase of over 20,000 bales over 1905. Mail advices to hand from New South Wales state that "there is still a shortage of nearly 70,000 bales of wool in the offerings this season by auction in Sydney, but the number of sheds to be cut out will fully make up for the shortage. Already there is an increase of arrivals of over 50,000 bales."

The future of Queensland as a source of wool supply is most promising. During the drought sheep died off at an appalling rate. In 1896 the aggregate number totalled 19,593,696, but in 1902 all that could be mustered were 7,213,985. Now, however, a wonderful improvement has taken place, for in 1905 the total had increased to 12,535,231, and to-day it is estimated that the number reaches to between fourteen and fifteen millions. Those persons engaged in sheep-farming are also an increasing quantity, for in 1896 there were 1,664 owners, while in 1905 there were 2,269. During the last ten years the average size of flocks fell from 11,755 to 5,255.

CEYLON PEARL FISHERIES

The total revenue derived from the Ceylon Pearl fishery and camp amounted to $875,392, and expenditure $73,510, and the net profit was $801,882—over $111,000 in excess of that of 1904, which was the previous highest on record. The inspector of pearl banks anticipated an excellent fishery in 1906, but that after a probably small fishery in 1907, and perhaps 1908, another break in the fishery cycle was likely.

A lease of the fishery was given to the Ceylon Co. of Pearl Fishers (Limited), for a period of 20 years from Jan. 1, 1906, for a sum of $103,333 per annum, it being stipulated that a sum should be annually expended by the company upon the improvement of the fishery of not less than $16,666, to be increased at the discretion of the government to any sum not greater than $50,000, and that all the expenses of the supervision and protection of the fishery camp by government should be borne by the company.

It is stated that the Pearl Fishers of Ceylon (Limited) shows a profit of $256,960. Dividends of 36 cents on the ordinary shares and 18 cents on the deferred shares are to be paid; $49,[illegible]8 is set aside for depreciation and reserve, and $77,382 is to be carried forward.

PAPER MAKING IN BURMA

An investigation has been conducted, under the orders of the Government of India, by Mr. R. W. Sindall, F. C. S., into the conditions under which paper and paper pulp might be manufactured in Burma. Mr. Sindall's report has been published and contains a full account of his experiments and observations. The Government of Burma is now prepared to entertain applications from persons desirous of establishing paper mills. With a view to encouraging a new industry, the following concessions will be granted and agreements will be concluded for a period of 21 years of which the main terms will be as follows:—

(1) No royalty will be charged on bamboos cut and utilized for the manufacture of pulp or paper within the said period of 21 years, or if charged on bamboos cut by contractors and supplied to the paper mill it will be refunded to the owners of the mill. (2) No royalty on manufactured paper stock will be charged for seven years, and thereafter the royalty charged will be Re. 1 per ton or such other rate as may be subsequently decided. (3) If necessary, areas for exclusive cutting of bamboos and suitable fibrous plants will be reserved for paper mills. (4) Suitable sites for the erection of a factory, if available on Government land will be granted rent-free for a period of 21 years subject to such restrictions as may be found necessary. (5) The free use of all roads to and from such a factory will be guaranteed.

On the other hand the Company or other party to the agreement will be bound as follows:—(1) to build a factory within two years from the date of the concession and keep the same working at least 120 days in each year; (2) to produce after the first seven years an annual output of 10,000 tons and after 14 years, an output of 20,000 tons of paper stock per year; (3) to render monthly statements showing the output of the mill each month; (4) to allow a full inspection of all books by the Local Government.

The agreement will be considered null and void if operations are not commenced as provided for in the terms of the concession. Copies of the report of Mr. Sindall on the manufacture of Paper and Paper Pulp in Burma can be purchased from the Superintendent, Government Printing, Burma.

INDIAN RAILWAY EARNINGS

The prosperity of railways in this country, says the *Calcutta Railways*, shows steady advance year by year. Last year, 1905-06, showed an advantage in gross receipts of 95½ lakhs of rupees over the previous year, 1904-05. and the current year 1906-1907 for 10½ months up to the middle of February showed an increase of gross receipts over 1905-06 of 134½ lakhs. By the conclusion of the official year this should easily run up to a million sterling. The East Indian Railway with the vast gross revenue of nearly 702 lakhs is 30 lakhs better than last year, but the North-Western State Railway has done best, having taken more than 47½ lakhs over the previous year's record. The Eastern Bengal State Railway's increase is represented by 27½ lakhs and the Bengal-Nagpur Railway is 13½ lakhs to the good. The surplus of revenue over expenditure after meeting all charges was well over £2,000,000 sterling in the past two years and the Budget will shortly enlighten us as to the balance to be struck in the present year. There is no doubt that the general prosperity of the country is taxing the resources of the leading railways. Increased traffic must necessarily be met with increased facilities for handling it, and all branches of railway working feel the strain. It is to be trusted that the Government will recognise the responsibility and set aside sufficient from the handsome revenue to meet the emergencies that have arisen. Such expenditure will prove productive. In this connection a very striking article appears in the London *Daily Chronicle*. We think the writer in his Radical zeal goes beyond the mark when he declares that the present system of railway administration in India, by which the development of the internal communications of the country rests, not on natural requirements, but on what the Indian Chancellor of the Exchequer may think he is able to spare out of State funds, results in "a crippling of industrial India." But he certainly puts his finger on a weak spot when he points out the disabilities of railway managements in shaping their own requirements with any degree of certainty as to what they are going to get, and also the impossibility under a system of yearly sanctions of looking ahead to any continuity of policy. "It is not possible," says the writer, "under the present system of annual allotment, for the Indian railways to make an intelligent forecast of the improvements necessary beyond the period of one year. No undertaking based on commercial principles can be run on the calendar. If an Indian railway company were to lay before the Government of India at once the full scope and cost of a design for the expansion of its system, in nine cases out of ten the board would be informed that the project was not feasible, because it would cost too much money. Thus works of public utility, designed to greatly develop the natural resources of India and to assist in the diversion of an appreciable section of the population from agriculture to industrial work—the aim of all Viceroys—are stifled before they are born. The boards of railway companies in India are prohibited, practically by the nature of their contracts, from taking the responsibility of comprehensive initiative."

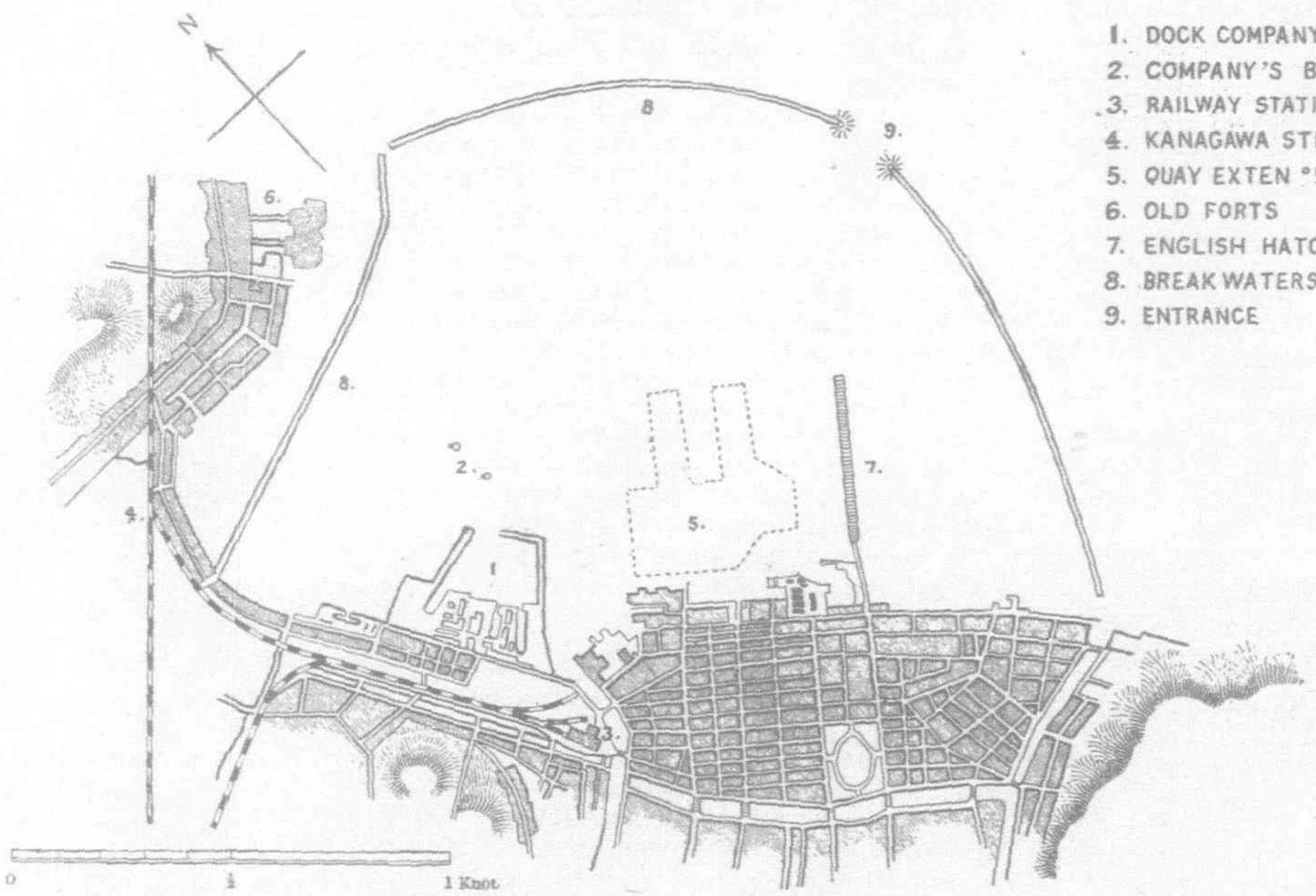
The writer of this article, though well intentioned, has probably not enough experience of Indian railway affairs to understand the peculiar exigencies of the Indian situation—or if he has it is his purpose to conceal it. The Government of India has not been averse to recognising that the railways cannot be superintended in the ordinary secretarial manner by civilians whose claim to omniscience rests upon their having passed an examination in academic subjects. The Railway Board was the outcome of this recognition and in the Railway Board we have embodied practical railway experience. So far so good. It is to be trusted, however, that mere popular clamor from merchants who propose crude remedies without the experience necessary to correct their judgment will not be allowed to shape railway policy. Whenever there is a difficulty in traffic, for instance, the invariable cry of the public is "more railway wagons." The traffic difficulties of getting increased quantities of rolling stock through rapidly and securely without improving traffic arrangements may not appeal to the layman, but to the railway man they are very evident. It is well known that there are long stretches of line on which the traffic arrangements are quite primitive, large numbers of stations that are not interlocked, so that crowding of the traffic must invite disaster, the safety of trains being dependent upon the alertness of the station-masters in charge unaided by the mechanical safety appliances which, by the way, are laid down as indispensable by the Government rules on the subject. There are urgent schemes now on hand for bettering the traffic conditions waiting for nothing but monetary sanction, and it would seem a pity if these are to be hung up in favor of large purchases of rolling stock which cannot be efficiently handled in the absence of more perfect signalling. If the money available be restricted it seems the wiser policy to distribute it equally so that the improvement of the various departments of railway work may go on *im gleichem schritt und tritt* rather than accumulate a mass of rolling stock which will only lead to congestion.

YOKOHAMA HARBOR RECLAMATION WORK

Mr. Tsumaki, Chief of the Temporary Construction Office of the Finance Department, on Sunday afternoon, March 24th, invited a number of members of both Houses of the Imperial Diet and the newspaper representatives of Tokyo and Yokohama for the purpose of showing them the reclamation work now in progress off the Yokohama Customs compound. Under the guidance of Mr. Tsumaki and his colleagues, the visitors were shown over the work, after which a cold collation was served. The work was started in May, 1899, and is expected to be completed in 1910, at an outlay of yen 10,520,000 altogether. Some 1,800 workmen are being employed daily. On completion, 13 steamers representing 54,500 tons will be able to come alongside the reclaimed wharves which will be connected by rail with the Yokohama railway station compound. These steamers comprise one of over 8,000 tons, six of 5,549 tons each, three of 2,895 tons each and three of 1,624 tons each. The reclaimed ground will, when completed, have two arms projecting in parallel lines with the Customs pier, the distance between the two arms being 60 ken. Both arms measure 176 ken by 60 respectively. The ground is already connected with the Nishi Hatoba by a bridge called the Bankoku bashi and will, in future, be connected with the Yokohama Customs compound by another bridge. The water at the wharves on the reclaimed portion varies in depth from 32 to 20 feet at ebb tide, the deepest portion inside the breakwaters being 35 feet. Below is a table showing details:—

Quay-wall	1,134 ken
Berth capacity	13 steamers
Landing space	252 ken
Total area to be reclaimed	68,600 tsubo
Bridges	2
Sheds, wood, (2,014 tsubo)	2
Sheds, iron, (10,710 tsubo	13
Brick warehouses, three-storied (3,0r97 tsubo)	4
Cranes	35

In addition, six more warehouses will subsequently be constructed on the ground. It may be noted that the Government Iron Foundry at Wakamatsu has supplied and will supply henceforth a quantity of iron materials for the building of the sheds.



YOKOHAMA HARBOR

BREAKWATER

The breakwaters are now undergoing repairs. The eastern breakwater, with white beacon, measures 5,383 feet and the northern breakwater, with red beacon, 6,702 feet. There is also a training wall measuring 6,193 feet, running from the end of the northern break water to Takashimacho where there is the Central Warehousing Company. It may be of some interest to note that the construction work of both breakwaters and training wall is historically connected with Great Britain and the United States, because the work was started in 1889 in accordance with designs drawn by the late Major-General Palmer of England and was finished in 1893. The expenditure required was appropriated from the indemnity which Japan paid to the United States in connection with the Shimonoseki bombardment during the pre-Restoration period and which was afterwards returned to Japan. By the storm of September, 1902, the breakwaters were badly damaged. Repairs were begun last year at an estimated outlay of yen 870,000 and are being pushed forward.

DREDGING

Dredging work within the harbor limits is now in progress. Two dredgers are being employed, one of over 500 tons and the other over 300 tons. The survey of the bottom was finished in 1904 and since then the work has been going on with a view to affording all possible facilities to future shipping. It is expected that on completion of the work the area of the present anchorage will be trebled. The following is a table showing the variation of depths inside the harbor:—

Estimated depth. feet	Estimated area. tsubo	Area dredged. tsubo
35	51,400	49,163
33	96,740	92,740
32	108,640	108,640
30	121,800	330
28	249 720	34,380
24	223,400	97,488
20	145,700	64,233

CAISSON

In conjunction with the dredging work a caisson is also in operation. Just like a diving bell, the caisson is sunk to the bottom, where a number of workmen are at work day and night. The caisson is a large square receptacle of steel, measures 36 feet by 24, and is 13½ feet high. It contains two tube-like openings, through which workmen, with the necessary tools, go down and come up, while ventilation is continually furnished. This caisson was originally designed by the Finance Department and was constructed at the Ishikawajima Shipbuilding Yard several years ago. A noteworthy feature is that the caisson can be used at depths ranging from 24 to 38 feet and can also be removed from one place to another according to the progress of the work.

SPEECH OF MR. TSUMAKI

A speech delivered by Mr. Tsumaki, Chief of the Temporary Construction Office, on the occasion, was in effect as follows:—

After thanking the visitors for the honor shown him in attending the function, Mr. Tsumaki said that it was in the sixth year of Ansei (1859 that Yokohama, which was then a fishing village, was converted into a commercial port. With the repayment by the United States of the Shimonoseki indemnity above referred to, the Tokyo Government had constructed the breakwaters and the Customs pier. Owing to the subsequent development of commerce and navigation it was decided to reclaim a portion of the sea in front of the Yokohama Customs compound. For the sake of convenience, the reclamation work was divided into two sections. Having obtained the consent of the Imperial Diet in 1898 for a disbursement of yen 2,340,000, the reclamation of the first section was at once started and finished by December, 1905. The work on the second section was commenced last year and is still in progress, backed by a fund of yen 8,180,000 which was disbursed by the Diet of 1905. One-third of the above fund was borne by Yokohama City itself. Great credit was due to the late Major-General Palmer of England who had drawn up plans for the construction of the breakwaters, the work on which was started in 1889 and finished in 1893. During the terrible typhoon of September, 1902, in which tremendous

waves washed the top of the beacons, the breakwaters were damaged to the extent of over 250 ken. The repairing work was begun last year at an outlay of yen 870,000. The dredging of the harbor was also being carrried on with a disbursement of yen 170,000 annually. The reclamation work and other repairing operations in the harbor were formerly in charge of the Kanagawa Prefectural Office, but were transferred to the Temporary Construction Office in 1903. Mr. Tsumaki ended his remarks by saying that the visit of such enlightened representatives of the people would mark the history of the reclamation work.

THE COWIE HARBOR COAL CO., LTD.

The directors of the Cowie Harbor Co. of N. Borneo concerning whose operations the most satisfactory reports are being received, have recently, without going to the public, made a fresh issue of capital to the extent of £25,000 in £1 shares. We understand that applications have so far exceeded expectations that in allotting the directors have been obliged to very considerably curtail the 5,000 shares that it was wished to reserve for those applying from abroad. There can, we think, be no question that the company possesses a very valuable property, which it is only natural the directors are anxious to lose no time in developing.

The prospectus, which has been privately circulated, states that samples of the coal from the Queen Seam have been analysed by Mr. G. R. Hislop, F. C. S., of Paisley, N. B.; Mr. Benedict Kitto, of London; and Mr. John Parry, of New Port, Mon. Mr. Hislop reports that it is a good steam and coking coal, and the other analysts concur in this opinion. In August last the shareholders were informed that the coal had proved satisfactory for steamer use, and in confirmation of this it may be stated that one of the steamers of the Indo-China Steam Navigation Company, Limited, was supplied with 75 tons, and the chief engineer reported most favorably upon it, estimating its steam qualities as superior to those of other Eastern coals, and characterising it as a "first class steaming coal and very economical." Active development work has been proceeded with at the mine, very satisfactory progress having been made. A tramway has been laid from No. 2 outcrop to a point on the River Silimpopon, some two miles away; wharves are being erected at Sandakan and at Grass Corner, Sebatik Island—the former of which is nearing completion; three lighters, two of 100 tons and one of 350 tons capacity, and a steam launch 40 ft. in length have been constructed. Houses have also been built for the accommodation of the colliery manager and the staff, while the native miners have been well provided for in this respect. It is to extend these operations and properly equip the mine that the present new issue of capital has been made. The money now being raised will therefore be devoted to the following purposes viz.:—(1) The prolongation of the existing tramway to a point in the lower reaches where there is deeper water and where coasting vessels can load. (2) The construction of two or more lighters. (3) The rapid completion of storage depots, loading sites and wharves at Grass Corner, Sebatik Island, and at Sandakan. (4) The increase of the labor force so as to accelerate mining operations. It is confidently expected that the completion of the above works will materially increase the facilities for distribution and also add to the dividend-earning capacity of the company.—*The London and China Express.*

KAWASAKI DOCKYARD CO.

The Kawasaki Dockyard Company of Kobe recently purchased about 30,000 tsubo of land in the neighborhood of the Hyogo Canal, and commenced the construction of a steel foundry. The work has now made much progress, and it is expected that casting operations will be commenced towards the end of this week.

The Kawasaki yard is now building a dispatch-boat of 1,250 tons to the order of the Imperial Navy, two passenger boats for the Nippon Yusen Kaisha, two steamers of 3,500 tons, to be named the Nanyang-maru and Shangyang-maru; two steamers of 2,500 tons the Hosan and Kagi, three passenger steamers of 6,000 tons for the Osaka Shosen Kaisha: three gunboats, the Chucheng, Chuyui and Chukwang, each of 740 tons, three others each of 525 tons, and four torpedo-boats—the Hupeng, Hujung, Hu-ao and Huyen each 96 tons—to the order of the Chinese Government; a destroyer, of 375 tons, and three torpedo boats, each of 96 tons, to the order of the Siamese Government.

MANCHURIAN FLOUR MILLS

During a recent tour of northern Manchuria, Consul-General Thomas Sammons, of Newchwang, found that the capacity of the 20 flour mills in that part of China had an output of upward of 85,000 poods, or approximately 15,300 barrels per day. Mr. Sammons furnishes the following particulars of that flour trade:

At Harbin, where there were six large and six small flour mills, the output was estimated at 45,000 poods (36 pounds to the pood) per day. This industry was established by Russian business men and is growing. It was found that the wheat crop surpasses that of the bean products in marketable value, and that as a result Chinese farmers were, in many instances, giving up the raising of beans and going into the wheat producing business.

Cloth flour sacks are purchased by Manchurian flour-mill operators in lots of from 50,000 to 100,000. The American cotton sack is used. These sacks are not, as a rule, printed in attractive colors, together with the name of the various brands, etc., as is the custom in America. The brand and frequently the name of the miller is stamped on the sack by hand. Many of the mills are operated continuously by three shifts, each shift being on the basis of one Russian to four Chinamen. The cost of wheat following the war ranged high, being 65 kopecks per pood, or about 1 cent gold per pound. The normal price was given as 50 kopecks per pood; total estimated cost per pood, 85 kopecks, 20 kopecks per pood being for labor. It was estimated that 65 per cent of wheat was saved in flour and that the balance sold for 50 per cent of the cost of the wheat—that is, at from 22 to 33 kopecks per pood. There was no waste. Everything is utilized. The wood used for fuel in creating steam power in the mills was considered excessively high, fuel being scarce.

The Russian mill hands were paid 60 and Chinese helpers 18 roubles per month, equivalent to approximately $30 and $9 gold. With two Russian and eight Chinese helpers to each eight-hour shift, one mill turned out in the neighborhood of 2,600 poods of 36 pounds each per day.

SELLING PRICE OF OUTPUT—AMERICAN FLOUR

The flour thus being manufactured was being sold wholesale at from 60 to 95 cents gold per pood of 36 pounds and at retail at from 65 cents to $1 per pood of 36 pounds. The millers complained of the high cost of wheat and the falling price offered for the flour and by-products. During the war high prices prevailed and profits were reported satisfactory, but with decreasing demands and a continuance of war-time prices for wheat the flour manufacturing business was, it was stated, unsatisfactory. Still, new flour mills were contemplated, and those already established were being enlarged in some instances. Russian flour manufacturers stated that they realized that they must adjust their business methods so as to succeed on small profits by increasing their sales.

During the war Pacific coast flour reached the northern Manchurian market via Vladivostok. Large quantities of Pacific coast flour, entering mostly through Newchwang and later through Tairen (Dalny), has been shipped into the interior successfully. The demand is growing rapidly, and the northern Manchurian flour manufacturers report that their output is consumed entirely by the local trade.

ORIENTAL NOTES

By Walter J. Ballard.

Philippine hemp is superior to all known fibres used in the manufacture of ropes and cordages. Last year the islands exported it to the value of $21,750,000 gold, of which the United States took nearly $13,000,000 worth. The total production last year was worth $27,000,000. The other $5,250,000 was used in the islands in making a beautiful cloth combined with Chinese silks. The cloth is woven by thousands of Filipino women in their homes. The new railroads in the Philippines will open up some of the richest hemp districts in the world. Twenty-seven of the thirty-five towns in Ambos Camarines province are entirely supported by the hemp industry.

Surgery is becoming very popular in the Orient. One very notable operation has been cleverly performed by Dr. Mary F. Fitch, the first American lady doctor of Sochowinission Hospital.

China will likely build a railway to the imperial hunting park, about forty "li" outside of Peking, with the object of encouraging foreign and Chinese traders to settle there instead of inside Peking. No compulsion will be used to force those in Peking to go, but future permissions to trade will be granted only for the new place.

Aguinaldo is farming on a large scale in Cavite province, Philippine Islands. Will also take up some of the "friars' lands." Is energetic and ambitious in agriculture, interested in modern machinery and increased production, says *The Seattle Post Intelligence.*

The famous commercial Mitsui family of Japan is forming a spinning and weaving company, with $1,500,000 capital. Headquarters will be in Tokio.

Lumber interests in Negros, Philippine Islands, are developing. One company has two locomotives and six miles of rail on the way from Manila; also $60,000 worth of mill machinery en route from the United States, which will cut 100,000 feet, board measure, a day. The company operates in a magnificent forest, a solid stand of eight miles square of several valuable woods.

The Industrial Bank of Japan, says *The Shanghai Times*, has established an office for the development of three valuable Japanese gold mines. One of them, the Hasami, is reported to be the most valuable gold mining property in the "Chrysanthemum Empire."

China will not allow private persons or companies to establish or maintain telephone systems. All are to belong to the Imperial Chinese telegraph administration.

The city of Tokio, Japan, has borrowed $7,500,000 in London, bearing interest at five per cent., redeemable in twenty years after the first ten years by installments or in one sum, as the city prefers. The issue price was $96½. Japan is very successful in borrowing money easily.

Japan's silk crop is larger this year than last year.

Nagasaki, Moji and other ports are shipping large quantities of cement to San Francisco and Los Angeles.

American calico, hitherto so largerly used in Corea, is being replaced by Japanese makes, says *The Sun Trade Journal*, a monthly in Tokio.

Immediate improvements absolutely necessary to the Manchurian Railway and at the Fushun coal mines, acquired by Japan from Russia, will cost $35,000,000. A further $15,100,000 will be needed later.

Tokio is to have a great international exposition in 1908, from April to October, inclusive. The cost will be $5,000,000, of which $2,500,000 will be paid by the imperial Japanese government, $1,500,000 by the city of Tokio and the other $1,000,000 will be derived from the sale of tickets, concessions, etc.

New South Wales exported 20,000,000 pounds of butter, valued at $4,090,000, in 1905. In the same year its mineral production was worth $35,000,000.

The Premier of New South Wales wants to engage eight or ten engineers, with salaries ranging up to $5,000 each, for large engineering works.

India's wheat crop is large, 8,560,000 tons, an increase of thirteen per cent. over last year.

The Australian government is planning to engage in the steamship business.

Mines, Mining and Minerals in the Philippine Islands

(Edited by the Bureau of Science, Manila)

[This department will be a regular feature of THE FAR EASTERN REVIEW *and will prove of general interest and value, especially to the miners of the Philippine Islands. It will contain a variety of reliable articles, observation and notes concerning the minerals of the archipelago, their development, observations on the mining situation, reports on the progress of development work by private interests, notes of a personal nature dealing with the movements and doings of the miners, and a fund of other useful information all of which is expected in a small way at least to help along mining enterprise. In order to give special weight to the department, as regards accuracy, etc., we have arranged with the Director of the Bureau of Science to have the matter edited by the Chief of the Division of Mines.*—EDITOR'S NOTE.]

OCCURENCE OF PETROLEUM IN THE PHILIPPINES

Petroleum has been found in three places in the Archipelago: one in Tayabas Province, the other two on the island of Cebu; one near the center of the island on the west coast not far from Toledo, the other near the southern extremity, very close to the pueblo of Alegria. At Tayabas and at the first named locality in Cebu some prospecting by means of boring has been carried on, but as yet the Alegria field remains practically unknown. The oil in all three of these localities is found in a bluish shale, presumably of Tertiary age. Taking up these prospects in detail we shall consider Tayabas first on account of its proximity to Manila.

Here two wells have been sunk, one by Mr. Cook on the Viego River (east coast), which is now 70 feet deep, and on the Bayhay River is another well belonging to a different company, which is 130 feet deep. In the latter well, which is about five miles from the coast, the yield at the present time is about fifty gallons per day. The well has a five inch bore and was made with a churn drill.

From report (no representative of this bureau has yet visited this field) formations in this region consist of shale beds inclined at an angle of about 45° to the east. These shale beds are marked by having along the bedding planes thin seams of broken limestone, from ¼ of an inch to 2 inches in thickness, and where these seams are struck there is a notable increase in the oil. This is quite natural, as the shale acts as an impervious stratum, confining the oil so that when one of these fracture zones is encountered oil is found accumulated there. This part of Tayabas Province is practically an anticline of anticlinorium with a limestone of unknown thickness forming its crest. It is quite probable that deeper boring, of say 500 to 1000 feet, would penetrate the entire thickness of the shale and reach a formation more porous, like a sandstone, in which the oil would be found in greater quantities. While I am not at liberty to publish the entire analysis which was made on a sample sent in by a private person, I can say that the oil appears to be of a very good grade. It has a paraffin base, in all probability very like the Sumatran oils, which also have a paraffin base.

In Cebu, near the town of Toledo and about three miles from the coast and just at the edge of the foothills, are located two oil wells, the first to be sunk in the Philippine Archipelago. These are located on the sugar estate of Smith, Bell & Company. These wells are sunk in shaley strata (in all likelihood the same formation as obtains in Tayabas) to the depth, respectively, of 800 and 1130 feet. Very fair shows of oil have been reported from these wells in former years, but at present all operations have been suspended in the district. In fact, nothing has been done in this field since the outbreak of hostilities in 1897, and when the writer visited the field he found the wells choked up with abacá stalks and other refuse material, said by the natives to have been the work of the insurrectos. The elevation of the surface of these wells is 75 feet above the sea-level. There is only one derrick standing now; it is approximately 60 feet high, the borings are 3 inches and the casing 6 inches. The strike of the strata is N 83° W. dip 73° to the south (these figures are taken from the report of the engineer who first examined the field). The drill gear and derrick are from Messrs. Islers, London.

About a mile from the oil well is an outcrop of coal which in former years was worked to some extent, but now is entirely abandoned. From a hasty reconnaissance of the country it is my opinion that the strata are less disturbed in this portion of the island than on the eastern side of the cordillera or to the south, in the vicinity of the Alegria oil field. It is the intention of the Division of Mines to undertake a more detailed survey of this region, with a view to the rapid delimitation of the coal and the oil bearing horizons, after the completion of the present work in the Danao-Compostela coal fields, but not until there are some signs of returning life in the district and interest on the part of capitalists.

At Alegria the oil is found at an elevation of 1150 feet up the Malbog Creek, about a mile and a half in a straight line from the coast. At 1450 feet a bed of poor brown lignite is found. The strata here dip eastward, or into the island, being quite different from what was found in the Toledo field. The rock capping on the surrounding hills is a coralline limestone of probable Pliocene age. The oil here appears to be identical with that from the other two fields and is found oozing out of the same bluish shale. To those intending to explore this field I would recommend that a portable drill be taken just over the divide, about half a mile to the east from the place where the oil at present comes to the surface, to a point where the topography reaches its lowest elevation, as the oil there undoubtedly is moving in that direction through the formation.

From a geological examination of these two fields and from what data I can get on the Tayabas country, I should not expect that any of these fields would support more that half a dozen wells, as there seems to be no great structural reservoirs for the accumulation of any great quantity of petroleum. Faulting and folding of the strata is the rule rather than the exception, in all of these areas, and they are of such a nature that the anticlines and synclines are not very large nor are they likely to be very continuous.

With reference to the likelihood of finding oil on the east coast of Cebu, I might add that although the sedimentary formations are the same, yet a great area of igneous rock which occurs there would cause serious interruption to the oil reservoirs or possibly preclude the formation of them at all. The connection between coal and oil deposits in Cebu and other islands of the group leads me to think that in time oil may be found in paying quantities in many other parts of the Archipelago.

WARREN D. SMITH.

ANNOUNCEMENT

The Division of Mines is contemplating the sending of an expedition during the next five or six months to make a preliminary mineral reconnaissance of Mindanao. This party will consist of one geologist, one mining engineer and one topographer, and it is hoped that the military authorities will co-operate in this work which ought to mean much to the Moro provinces. Besides making geological reconnaissances, route maps, etc., it is the intent of the members of the party to visit every locality where bona fide prospecting and development work has been carried on.

For this reason the chief of the division urges every prospector, who may chance to see this announcement, to leave his name, location of property and all other information that might be of assistance to this party, at military headquarters in the various districts and provinces.

Mindanao has necessarily been long neglected by geologists and mining men, but it is our hope that we may be able to now make amends for this remissness in the past.

TELLURIDE.

The telluride of gold—calaverite,—has been positively determined by the division of mines in some specimens recently brought in by Dr. Fairbanks. The specimens are known to have come from the gold mining district of Southern Lepanto.

This announcement should be of great interest to the mining fraternity, if for no other reason than that it is the first authentic report of telluride in the Philippine Islands.

PERSONAL

Mr. A. P. Wright, who has been prominently associated with Lepanto mining for the last three or four years, returned from the States last month to take charge of the Lepanto Mining Co., during the absence of Mr. Lehlbach.

Mr. C. J. Cooke paid a short visit to Manila last week for the purpose of replenishing his working supplies. He expressed himself as well satisfied with his prospects in the Island of Marinduque.

Messrs. Morgan and Eveland, of the Eastern Mining Co., left for the States in the early part of this month.

Dr. Fairbanks, who is interested in and has prospected some mining property on the Southern border of Lepanto-Bontoc, left for Seattle on the last trip of the *Shawmut*.

He expects to be gone until the end of next year and then return to further develop his prospects.

Mr. J. H. Brown, president of the Automatic Telephone Co., has been making inquiries regarding the location and available supply of cement making material, with an idea of interesting foreign capital in the manufacture of this commodity in the Philippine Islands.

CURRENT NEW YORK WHOLESALE PRICES OF METALS, MINERALS, CHEMICALS, ETC.

Selected from the Engineering and Mining Journal.

ABRASIVES.—			
Bort good drill quality	carat	$	85.00
Carborundum, grains	lb		.10-.17
Corundum "	"		.07-.10
Emery, grain	"		.035-.045
Pumice Stone, American powdered	100 lbs		1.60-2.00
ACIDS.—			
Hydrochlorie 20°	lb		1.25-1.50
Nitric, 38°	"		4.25-4.625
Sulphuric, 66° bulk	ton		18.00-20.00
Aluminum, 99%	lb		.36-.39
Antimony, needle	"		.135-.14
Arsenic, white	"		.07¼-.08
ASBESTOS.—			
No. 1, crude	sh. ton		223.00
Fiber No. 2, paper stock	"		17.20
ASPHALTUM.—			
Trinidad	ton		30.00-40.00
California	"		20.00-30.00
Bleaching powder, 35%	100 lb		1.30-1.50
Blue Vitriol			7.25
Bone Ash	lb		.02¾-.03
Borax	"		.07¼-.07¾
*Caps detonating	M		7.50
CEMENT.—			
Portland, American	500 lbs. bbl		1.55-160
Foreign.	"		2.25-2.90
Rosendale	300 "		.85
*Green Island	375 lb. bbl		2.50
*Alsen			2.62½

CLAY, CHINA.—		
American common	lg. ton	8.00-9.00
Foreign	"	11.50-17.50
Copper	lb	.24¾-.25½
*Dynamite 40%	"	.22½
Feldspar ground best	sh. ton	7.00-15.00
Fire brick, American	M	30.00-40.00
Imported	"	26.00-45.00
Fire clay, St. Louis Mill	ton	2.50
*Fuse-Blasting	1,000 ft	7.50
Graphite—American ore, common	lb	.01-.10
Artificial	lb	.06
Gypsum-Fertilizer	lg. ton	7.00
Rock	lg. ton	4.00
Lead	lb	.06
Magnesite—Greece, crude, 95%	lg. ton	7.00-8.00
Bricks, domes	per M	160-200
Manganese, pure, 98-99%	lb	.75
Ore, 80-85%	sh. ton	27.00-35.00
Mercury, export flask	75 lbs	37.00-37.50
PAINTS AND COLORS.—		
Litharge, American P'w'd	lb	.07¼-.07½
Ochre, Am. Com	sh. ton	8.50-9.00
Paris Green, pure, bulk	lb	.21-.23
Turpentine, spirits, bbl	gal	.70-.71
White lead, Am. dry	lb	.06⅞-.06½
Am. in Oil	"	.07-.07½
Zinc, white, Am. extra dry	"	.05⅞-.05½
Phosphates, Acid	per unit	.65-.67½
Florida hard rock	lg. ton	7.50
Land pebble 68%	"	4.50
Potassium Cyanide (98-99%)	lb	.18-.19
Platinum	Oz	38.00-41.00
*Powder black blasting	lb	.13
*Judson	"	.13½
Pyrite, Domestic Non-arsenical, lump	unit	.11-.11½
Imported non-arsenical lump	"	.13-.13½
Imported, arsenical "	"	.12-.12½
Silica, Lump quartz	sh. ton	2.50-4.00
Ground quartz, ordinary	"	13.00-15.00
Glass sand, ordinary	"	2.75
Silver	Oz	.69
Sodium cyanide (100% KCN)	lb	.18-.19
Saltpeter crude	100 lbs	3.75-4.00
*Steel, octagon drill	lb	.15
Sulphur, Louisiana prime	lg. ton	22.12-22.50
Roll	100 lbs	1.85-2.15
Flowers sublimed	"	2.20-2.60
Talc—Domestic	sh. ton	15.00-20.00
Italian, best	"	35.00-40.00
Tin	lb	.41¾-.42
Zinc, metallic ch. pure	"	.15
Dust	"	.05⅞-.06¼

*Manila quotation.

JUTE GROWING

Consul E. H. Dennison, of Bombay, reports that there are two questions in connection with the jute industry of India occupying the serious attention of the Indian government, namely, the extension of its cultivation and the proper means to pursue to check adulteration. The consul continues:

In spite of the fact that the area under jute cultivation has increased over 40 per cent in the last decade, nevertheless the demand has always exceeded the supply, owing to the numerous and ever-increasing applications of the jute fiber, due to its comparative cheapness. As a result prices have risen over 40 per cent in the last five years, and have made its adulteration a most profitable business, buyers being unable to protect themselves against this fraud so flagrantly practiced, the jute frequently being watered up to 30 per cent, sand also being used for adulteration.

The jute-producing districts at present are restricted to the provinces of Bengal and eastern Bengal, and it is said that these will soon have reached the limit of their productive power, and that they will be utterly unable to keep pace with the enormous increase demanded. Investigations have been conducted by the government with a view of finding other districts outside of these provinces which would be adaptable to jute production. There are several districts where the temperature, soil, and rainfall or water supply are similar to the great producing districts of Bengal, such as Malabar, South Kanara, and Ganjam, in the Madras Presidency, and the irrigated district around Poona, in the Bombay Presidency. What will be the result if experiments are tried is impossible to say, but in the event of failure, the plan of finding substitutes offers a most attractive field.

India is rich in fiber-producing plants, it being estimated that at least thirty of these are capable of commercial exploitation. It is hoped that investigation will prove that some of these will be discovered to possess properties equal to those of jute, or at least capable of being substituted for jute for some of the purposes to which that article is put. Experts are of the opinion that the most suitable substitute is *Hibiscus cannabinus*, otherwise known as "Bimlipatam jute," the cultivation of which is chiefly confined to the Madras Presidency. The high price of jute has stimulated this industry, the acreage of which rose from 37,171 acres in 1905, with a fiber output of 80,000 bales, to 68,201 acres in 1906. Its spinning qualities are, however, not so good as jute, but it can be used in place of jute for many purposes.

The adulteration of jute has been the subject of a petition from the Bengal Chamber of Commerce to the government of Eastern Bengal, praying for legislative interference. It has been suggested that an effective way to prevent this adulteration is by the extension of the area cultivated or by increasing the yield per acre.

THE PRESERVATION OF MINE TIMBERS

The experiment carried on during the past few months by the Philadelphia and Reading Coal and Iron Co., under the direction of a member of the U. S. Forest Service, has demonstrated that the preservation of mine props can be put on a firm commercial basis.

In the loss of mine timbers at least 60% are destroyed by decay and the remainder by crushing. The percentage charged to decay should be even higher, because many of the timbers which break have already been weakened by decay. Decay is probably the cause of 75% of all failures in mine timbers. The decay in props is principally caused by wood-destroying fungi. Warm, moist air, together with certain gases, found in mines, greatly favors the development of these fungi. Ventilation is an enormous factor. Timber in the vicinity of shafts and slopes where there is abundance of fresh air lasts longer than that deeper in the mines. The variation of moisture and temperature within mines is so wide that timbers may decay in eight months or may last several years. Timbers that are constantly wet or constantly dry last longer than those subjected to an alternation of these conditions.

Various materials and methods for preservative treatment have been tried, and up to the present time all have proved efficient. Only time will show which are the most satisfactory from the practical point of view. Applied with a brush, creosote and carbolineum give an excellent penetration in solid wood, frequently averaging from ¼-in to ½-in. Little difference in penetration has as yet been noted between creosote and carbolineum, though the latter seems better on absolutely green timber. All brush treatments were applied hot and in two coats. The second coat absorbed practically as much oil as the first.

Open-tank treatment has succeeded beyond all expectations. This consists of an immersion of the timbers for several hours in preservative and then allowing them to cool to atmospheric temperature. While the feasibility of the open-tank treatment has been demonstrated, there is much yet to be learned. The cost may be reduced by shortening the immersion and thus consuming less fluid. A very heavy treatment is not necessary. Seasoned and treated props, which were put in alongside of the old-style props, unseasoned and unpeeled, are as sound as ever, while the others are already showing signs of fungous growth and decay.

Most of the props in the collieries investigated are loblolly pine; Pennsylvania pitch pine furnishes 20%; black and red oak, 10%. The loblolly pine comes from Maryland and Virginia, the pitch pine from north-central Pennsylvania, and the oak largely from New Jersey and Pennsylvania. The experiments have been mainly on loblolly pine, the wood most used.—*Engineering News.*

HEMP STATISTICS, MAY 1st, 1907

(Courtesy of C. N. NICHOLSON, *Secretary Manila Chamber of Commerce.)*

Arrivals of hemp at Manila up to 30 April		237,992 *Bales.*
Arrivals of hemp at Cebu up to 30 April		69,030 *Bales.*
Arrivals of hemp at all Ports up to 30 April		307,022 *Bales.*
Stocks on hand in Manila and Cebu on 1st January 1907		63,432 *Bales.*
TOTAL		370,454 *Bales.*
Export to all parts to date 30-3-07	268,603 *Bales.*	
Local consumption estimated at	6,875 "	275,478 *Bales.*
Total stocks at Manila and Cebu on 1st May 1907		94,976 *Bales*

EXPORT OF HEMP, APRIL 1907.

Date	*Vessel*	*London*	*L'pool*	*Atlantic U.S.*	*Pacific East & California*	*Australia*	*Other pts.*	*Total Bales*
	F'wd:—	73,600	20,586	67,396	3,000	1,715	15,527	181,024
Apr. 2	Taming	250	250					500
" 4	Slavonia						1,202	1,202
" 5	Loongsang						150	150
" "	Zafiro	200			2,075		1,050	3,325
" 7	Manila						71	71
" "	Palma .....Cebu	5,164	1,350					6,514
" 8	Indrapura			16,937				16,937
" 9	Tean	50			648			698
" 11	Lyra				5,400		1,141	6,541
" 12	Yuengsang	6			527			533
" 13	Rubi	900					251	1,151
" "	Sungkiang.....Cebu						150	150
" 16	Alicante	2,000	2,000					4,000
" "	Taming	150						150
" 18	Kouang Si	7,612					450	8,062
" 19	Zafiro						1,054	1,054
" "	Jesseric			8,182				8,182
" "	Kaifong.....Cebu						50	50
" 22	Yawata Maru					1,600		1,600
" 25	Norman Prince						100	100
" 26	Rubi	800					800	1,600
" 27	St. George			9,920				9,920
" "	Suevia						1,100	1,100
" "	Jason.....Cebu	4,241						4,241
" "	Jesseric .....do.....			8,538				8,535
" 29	Prinz Waldemar						160	160
" 30	Eastern						250	250
	TOTAL	94,973	24,186	110,973	11,650	3,315	23,506	268,603

FAR EASTERN ENGINEERING, CONSTRUCTION, COMMERCIAL AND FINANCIAL NEWS

ELECTRIC RAILWAYS, LIGHTING, POWER, ETC.

YOKOHAMA ELECTRIC LIGHT CO.—The Yokohama and Kanagawa Electric Light Companies have amalgamated under the name of the Yokohama Electric Light Co.

CAWNPORE ELECTRIC STREET RAILWAY.—The Indian Electric Supply and Traction Co. opened the new system in Cawnpore to traffic last month. The system was inaugurated by giving the public the privilege of riding free for two days.

KIRIN ELECTRIC LIGHT PLANT.—A charter for an electric light company with a capital of Tls. 200,000 has been secured by a German merchant of Kirin. It is the purpose of the company to supply the city of Kirin with light and power.

ELECTRIC LIGHT FOR ESSENDON.—The municipal council of Essendon, a northern suburb of Melbourne, has accepted the offer of the North Melbourne Electric Tramways and Light Co. to install 450 32 candle power lamps at £2 10s each per annum.

AKASHI-MIKI ELECTRIC TRAMWAY.—A syndicate known as the Denki Tetsudo Kabushiki Kaisha, capitalized at Yen 500,000, has applied for a franchise to construct and operate an electric tramway between Akashi and Miki in the Kobe prefecture.

NEW ZEALAND TO HARNESS WATER POWER.—The New Zealand government is considering a scheme whereby it proposes to utilize Huka Falls and supply the Auckland District with 76,000 horse power with which to develop electricity for light and power.

JAPANESE ELECTRIC RAILWAYS.—Among the newly organized electric companies in Japan are the Hansei Electric Railway Company which is to build a new 5-mile line at Osaka at a cost of $1,250,000 and the Kobe-Takarazuka Electric Railway Company, capital $1,250,000.

TAMAGAWA ELECTRIC RAILWAY.—The Tamagawa Electric Railway was opened for traffic April 7. This line connects the cities of Dogenzak and Tamagawa by way of Sangenjaya a distance of over five miles. The line is divided into four sections and the fare fixed at four sen per section.

UNDERGROUND RAILWAYS IN JAPAN.—A company capitalized at Yen 15,000,000 has been organized at Tokio for the purpose of putting in twelve miles of underground track the system to be operated by electricity. In this connection similar projects have been reported from other cities of Japan.

PROPOSED ELECTRIC TRAMS FOR PEKING.—Taotai Hwang Kai-wen, Director of the Peking Telegraph and Telephone offices, has sent in a petition to the Board of Posts and Communications, and of Agriculture, Works, and Commerce requesting permission to build an electric tramway after the same methods as the Tientsin Trams, with Chinese money.

JAPAN GOVERNMENT TO TRY ELECTRIC POWER ON RAILROADS.—It is the purpose of the Tokio government to use electric power on some of the government railroads and a test will be made by introducing it on the roads Kodzo and Yokohama, Yokohama and Shimbashi, and Shimbashi and Uyeno, forming a semi-circle about Tokio. If the trial proves satisfactory the use of electricity will be extended.

ELECTRIC POWER TO DISPLACE STEAM.—It is reported that the work of making necessary additional arrangements on the present railway between Yokohama and Kodzu for the purpose of running electric cars in addition to steam trains will be commenced in August or September this year. It is reported that one new line will be laid on the above section. Electric car traffic will begin in March or April next year.—*Japan Advertiser.*

UNDERGROUND WIRING IN WESTERN AUSTRALIA.—The postal authorities of the city of Perth, Western Australia, have let the contract for 3300 conduits with six ducts each and 1380 conduits with four ducts each to be installed from two to three feet underground and encased in a bed of concrete. This is the first contract let and tenders for another supply have been invited. These conduits will place all the telephone wires underground.

NEWCASTLE (N. S. W.) TRAMWAYS.—About 30 miles of tramway construction will feature the public utility improvements of Newcastle (N. S. W.) this year. The contract for the construction of an extension of the main system of the city to the race course has been awarded and work on the twenty mile line connecting East and West Maitland has been commenced. In addition to these contracts the Works Committee are considering the extension of the Newcastle system to West Wallsend, a distance of about six miles.

ELECTRIC POWER FOR ADELAIDE TRAMWAYS.—The Government of South Australia took over the horse tramways of Adelaide in February and later turned them over to the Municipal Tramways Trust, a corporation composed of representatives of the state and of the various municipal authorities concerned. The price paid by the State was £280,000, an amount less than the original cost of the lines involved. It is the purpose of the State to substitute electricity for horse power at an early date and reorganize the entire system.

MADRAS ELECTRIC SUPPLY CO.—In connection with the plant which Messrs. Crompton and Co. are erecting for the Madras Electric Supply Corporation Ltd., it is stated that the general supply will be available for lighting and punkah fans and motors and will be on the low pressure direct current three-wire system, the consumers being supplied at 225 volts or 450 volts. To meet the demand for current in bulk for mills, factories and large consumers in or near the town, three-phase current will be generated at 5,000 volts, and delivered to consumers at that pressure and converted by means of transformers to suit their special requirements. A substation will be installed which will be from the high pressure alternating plant at 5,000 volts, the current being converted into low pressure continuous current and distributed from the sub-station at 225 or 450 volts. This sub-station is necessary from the fact that the supply area is approximately 26½ square miles. Further sub-stations will be ereced as required by the demand upon the supply. The Main Generating Station is being erected on a portion of the site of the old Municipal Sewage Farm now disused—the position being well situated as far as the supply of water and coal is concerned, a very important point. The direct current plant to be installed will consist of two 250 and three 500 kilowatt continnous current steam dynamos. This is equal to about 100,000 lamps or their equivalent, connected to the mains. The high pressure alternating current plant for the bulk supply will consist of two 250 and two 500 kilowatt three-phase high tension steam alternators. The steam for driving the plant will be derived from five water tube boilers with electrically-driven chain grate stokers. Each engine will have its own electrically-driven surface condensing plant and four electrically driven boiler feed pumps will be installed. The Generating Station will be of the most modern design and complete with coal conveying plant, two 20-ton travellers and water storage and purifying plant. The total amount of cable to be laid, including distributors and feeders, high and low tension, is approximately 54 miles.—*Eastern Engineer.*

RAILWAYS AND RAILWAY SUPPLIES

SOUTH MANCHURIAN RAILWAY CO.—Debentures to the amount of £80,000 will shortly be placed on the market in New York.

KAIFENG-CHENGCHOU RAILWAY.—Traffic on the Kaifeng-Chengchou section of the Honan Railway was inaugurated April 16.

SOUTHERN MAHRATTA RAILWAY.—The Miraj-Sangli branch of the Southern Mahratta Railway in India was opened for traffic April first.

KAIFENG-FU-LOKYANG RAILWAY.—The Chinese foreign office is arranging for a Belgian loan to build a railroad from Kaifeng-fu to Lokyang.

KIRIN-CHANGCHIN RAILWAY.—A lot has been selected by the management of the road about a mile north-east of the town of Changchun as a site for a railroad station.

KING-CHANG RAILWAY.—An effort is being made at Peking to float a loan in Europe for $10,000,000 to be used in constructing the King-Chang Railway and to build an arsenal.

AUSTRALIAN RAILROAD SLEEPERS:—An order has been placed in Australia by the North Western Railway of India for the delivery of 400,000 sleepers and 9,000 bridge timbers.

NINGPO-HANGCHOW RAILWAY.—French capitalists have made application to the governor of Chekang for a concession to build and operate a railroad from Ningpo to Hangchow.

TSITSIHAR-AIGUN RAILWAY.—The Tartar General of Heilungkiang has dispatched representatives to Harbin to purchase sleepers for the new road the survey of which has been concluded.

KIRIN-CHANGCHUN RAILWAY.—The military governor of Kirin has refused the offer of the Japanese and Russian Consuls to supply the capital necessary to construct the Kirin-Changchun Railway.

SHANTUNG RAILWAY.—The governor of Shantung is semi-officially reported to have granted a concession to a German syndicate to construct a railway from Yihsien to the Tienchuang river.

KUEICHUA-KALGAN RAILWAY.—With three million taels subscribed by the rich secretary of the railroad board, the Kueichua-Kalgan Railway management has decided to proceed with the construction.

AMUR RAILROAD BRIDGE.—The site of the railroad bridge over the Amur River has been decided upon and construction begun. The contractors propose completing this important construction by the end of the year.

BURMA RAILWAY EXTENSION.—The lieutenant governor of Burma announces that a railway will soon be built from Kawakareik to Myawaddi on the Siamese border. The survey of the line has already been commenced.

MANCHURIAN RAILWAY TO HAVE DOUBLE TRACK.—The survey of the Southern Railway for the purpose of doubling the track was commenced March 20. It was expected that the laying of steel would begin about May first.

SHWEBO-YE-U RAILWAY.—The Burma Railways Company has secured permission from the government of Burma to complete the survey of a proposed line to extend from Shwebo on the Mu Valley Railway to Ye-U, a distance of 22 miles.

KIRIN-CHANGCHUNG RAILWAY.—The sum of Tls. 4,000,000 has been subscribed by the Taotai Sung Chun-so for the construction of the proposed railroad between these two points. It is said that half of this sum came from Russian sources.

KIACHOW-CHINANFU RAILWAY.—The governor of Shantung has granted a franchise to the Kiachow-Chinan-fu Railway to construct a branch from Yih-hsieno to Tien-Chwang-ho. The prospectus and estimates have been submitted for approval.

YI-HSIEN AND GRAND CANAL RAILWAY.—The Peking government has granted the salt taotai, Chang Lien-fu, a concession for a railroad of normal gauge to connect Yi-hsien with the Grand Canal. The contracts for the rolling stock were let at Tsinanfu, March 30.

HANKAKU RAILROAD CO.—The attempt of the directors of this company to increase its stock while the share market was booming failed, and the resolution authorizing this step was rescinded. The shareholders refused to subscribe for the shares allotted to them.

YUNNAN-TIBET RAILWAY.—The Grand Council at Peking has directed that the construction of the Yunnan-Tibet railway must be pushed at once and that no foreign capital must under any circumstances be utilized nor must the contract be let to any foreign syndicate.

PEKING-KALGAN RAILWAY.—The Hongkong and Shanghai Bank has agreed to forward profits of the Peking-Shanghai-Kwan Railway for the use on the Peking-Kalgan Railway Works, but the Board of Communications is strongly opposed to the arrangement.

MANCHURIAN RAILWAY AGREEMENT.—An agreement signed April 14, at Peking, stipulates for the joint laying of the Kirin-Changchun Railway; for the purchase by China of the Hsinmintun-Mukden Railway; and for the investment of Japanese capital in that railway East of the Liaoho.

PROPOSED MANDALAY TRAMWAY.—A company has been formed to construct and operate a steam tramway between Obo and Zegyo in the town of Mandalay, Burma. The promoters agree to pay the municipal authorities an annual track rent ranging from Rs. 250 to Rs. 1,000 a mile.

CHEFOO-PEKING RAILWAY.—The merchants and property owners of Chefoo are advocating a railroad from that port to the Chinese capital. In this Tientsin sees the probable injury of her interests and opposes the project. The matter is to be taken up with the authorities at Peking.

MANILA RAILWAY.—The traffic receipts of the Manila Railway for the week ending March 16 were $54,338 (including extensions, 207 miles open) against $41,627 (main line only, 132 miles open) for the corresponding week of 1906, making an aggregate of $496,810 against $379,222 for last year.

MANILA RAILWAY.—The traffic receipts of the Manila Railway for the week ending March 23rd were $47,979 (including extensions, 207 miles open) against $37,197 (main line only, 172 miles open) for corresponding week last year, making an aggregate of $340,070, against $264,154 for last year.

THE SANDAKAN-MARUDA BAY RAILWAY.—The survey of this proposed line has now reached the east side of Sandakan. The route proposed was by Deep Creek and comes out west of Sandakan but this has been abandoned by the surveyors on account of the hilly character of the ground there.

CANTON-HANKOW RAILWAY.—The management of the Canton-Hankow Railway ordered 54 freight cars from Japan at a cost of $216,700, but discovered later that the price quoted by the Japanese did not include the axles or wheels. As a result the order has been reduced to meet the appropriation.

BURMA RAILWAYS.—Capt. Hearn, R. E., Deputy Consulting Engineer for the Burma Railways, left Rangoon March 20 to inspect the Myawaddi Railway survey and the Pegu-Moulmein extension. Mr. Mills, Chief Consulting Engineer for Construction, is going to meet Capt. Hearn.—*Rangoon Times.*

MUKDEN-HSINMINGTUN RAILWAY.—Viceroy Yuan Shih-kai has memorialized the Throne that the profit of the Chinese Railways within and without the Great Wall should be appropriated to cover the expenses of the proposed railway between Mukden and Hsinmintun. The proposal has received imperial sanction.

DOUBLE TRACK ON TOKAIDO RAILWAY.—The work of doubling the railway on Biwashima-Kiyosu and Yaizu-Shimada sections of the Tokaido line has been finished and the lines open to traffic. Okazaki-Ofu and Ofu-Atsuta sections of the same line are also expected to be completed before long.

EAST INDIAN RAILWAY.—The construction of the Khurja-Hapur branch of the East Indian Railway is almost complete and in a short time it will be thrown open. This branch connects the Moradabad-Ghazibad section of the Oudh and Rohilkund Railway at Hapur with the main line of the East India at Khurja.

SZECHUEN-TIBET AND YUNNAN-SZECHUEN RAILWAYS.—The Chinese landowners of the provinces of Szechuen and Yunnan intend to forestall British enterprise by building the Szechuen-Tibet Railway with Chinese capital. The native capitalists are also interested in a projected line between Chengtu and Western Yunnan.

CHIHLI-SHANTUNG RAILWAYS.—The viceroy of Chihli has been in communication with the viceroy of Shantung on the subject of constructing a railroad about 400 li to connect Shanteh in Chihli with Chinanfu in Shantung. It is reported that an agreement has been reached and that the survey of the proposed line will begin at once.

TIENTSIN-CHINKIANG CONCESSION.—There is a prospect that the application for a franchise by an Anglo-German Co. to construct a railway between Tientsin and Chingkiang will be favorably considered by the Peking government. A memorial signed by the leading officials of Chili, Shantun and Kiangsu has been submitted to the throne.

MANILA RAILWAY.—The traffic receipts of the Manila Railway for the week ending March 30th were $19,112 (including extensions, 207 miles open), against $10,854 (main line only, 132 miles open) for the corresponding week of 1906; making an aggregate of $599,490 against $451,376 for last year.—*London and China Express.*

CHINESE TRUNK LINES.—The departments of Communications and Posts have recommended to the Empress Dowager that extensive trunk lines of railroads be built throughout the Chinese Empire. The Empress Dowager directed that a complete railway map of the empire be submitted with the proposed trunk lines indicated thereon.

YIHSIEN-TIENCHUANG RAILWAY.—The Chinese-German Coal Mining Company is busy surveying a line 90 li in length connecting Yihsien and Tienchunag in Shantung to be built at an estimated cost of 900,000 Tls. An order for material has been placed with a German firm. The road will be used exclusively for the transportation of coal.

TRAMWAY EXTENSION TO BARANAGORE.—At a meeting of the Cossipore-Chitpur Municipal Commissioners held the other day the necessary agreement *re* tramway extension to Baranagore between the Calcutta Tramway Co., Ltd., and the Commissioners was approved and forwarded to Government for final orders.—*The Bengalee, March 23, Calcutta.*

BHAMO-TENNE RAILWAY.—To tap the trade of Tibet and divert it from the Tonkin Railway is the purpose of a British syndicate that has invaded Yunnan. This line will be in a position to supply the country in and about Tibet and carry all the cotton grown in the Upper Yunnan to Bhamo to market. Bhamo is situated on the boundary of British Burma.

KOWLOON-CANTON RAILWAY LOAN.—A dispatch from London states that subscriptions are being invited for a Chinese Imperial Railway loan for the construction of the Chinese section of the Kowloon-Canton line.

The amount of the loan required is £1,500,000 at 5 per cent issuable at par and redeemable in 30 years.

THE YUNNAN RAILWAY.—The Yunnan Railway construction is progressing slowly owing the scarcity of the labor, through the inability of the natives of the province of Szechuan, who make up the greater part of the labor, to stand the rigors of the northern climate. However, the railroad authorities expect to reach the Chinese treaty port of Mongtse about the middle of January.

SHANGHAI-NANKING RAILWAY. — New passenger coaches have been put on the Shanghai-Nanking Railway and the fare has been reduced one-half. The management has introduced the American check system in the baggage department, which has proved a welcome innovation. Four pieces of baggage are allowed each passenger and porters are supplied at each station who atend to the transfer at two cents per passenger.

MANCHURIAN RAILWAY JUNCTION.—The *Mainichi Dempo* states that the junction of the Russian and Japanese lines in northern Manchuria is to be at Palipao, This place lies on the Chuangchun-Kilin high road. which, setting out from Kilin, runs nearly due West to Changchun, thence to Wutipao, and thence to the railway, which it crosses and enters Palipao. The last-named place lies 4 miles north of Menkiatun and about 2 miles south of Kwanchengtsz.

AMERICAN LOCOMOTIVES SOLD ABROAD.—The American Locomotive Co. has received the following orders for locomotives for delivery in foreign countries: Two eight-wheel passenger locomotives for the Canton-Hankow Railway, China; three prairie type tank locomotives for the Yueh Han Railway, China; five prairie type tank locomotives for the Yokohama Railway of Japan; two four-wheel type saddle tank locomotives, government railway of Guatemala, and three mallet type locomotives, Central Railway of Brazil.

INDIAN RAILWAYS.—The following additions were made to the railway system of the United Provinces during the year 1905-06:—*East Indian Railway:*—The Shikohabad Furrukhabad branch, 36½ miles, and the extension of the Etmadpur chord from Satauli to Etmadpur one mile; *Agra Delhi Chord Railway:*—The Sanket branch from Kosi to Sanket, 6 miles; *Bengal and North-Western Railway:*—The Barhni Tulsipur section, 23 miles; *Rohilkhand and Kumaon Railway:*—The Bareilly Soron section, 56 miles.—*The Capital.*

BAIKAL RING RAILWAY.—The railroad built by the Russian government around the southern end of Lake Baikal in Eastern Siberia is reported in very bad repair and it will necessitate an outlay of approximately £1,150,000 to put that section in proper shape again. This road is about 162 miles in length and cost the Russians the sum of £4,250,000. When the war broke out the construction of part of it was rushed and the consequence was that it was very poorly built and will have to be gone over again. The cement and other materials proved very inferior.

PATENT VOUCHER BLOCK INSTRUMENT ADOPTED.—The *Calcutta Railways* announces that the Indian railways generally have adopted the Neale Patent Voucher Block Instrument. In fact the Railway board has issued a circular to all railways in India calling attention to the new device with a view to giving it a trial. It has been already adopted by the East Indian Railway, Great Indian Peninsula Railway, Bengal-Nagpur Railway, Burma Railways, Oudh and Rohilkhand Railway, and we understand the Eastern Bengal State Railway has decided in its favor.

SOUTHERN PUNJAB RAILWAY.—The total approximate earnings of the Southern Punjab Railway for week ending 2nd March, 1907, were Rs. 75,220, against the audited figures of Rs. 84,035 for the corresponding week of the previous year. Those of the Ludhiana Extension were Rs. 11,309, against Rs. 7,989. The total approximate earnings of the Southern Punjab Railway for week ending 23rd February, 1907, were Rs. 82,487, against the audited figures of Rs. 1,02,029 for the corresponding week of the previous year. Those of the Ludhiana Extension were Rs. 12,343, against Rs. 12,222.—*Railways.*

KIRIN-HEILUNGKIANG RAILWAY.—A protest has been filed by the Russians against the proposed construction of a railroad from Kirin to the north of Heilungkiang and connecting the latter place with Sanhsing, a project that has been set on foot by the Chinese government. The Russians claim that they have a right by a former agreement with China to participate equally with the Chinese government in the construction and operation of railways in that part of Chinese territory and further claim that with China in complete control of the proposed road the interests of the Eastern Manchurian Railway would be seriously affected.

CEYLON RAILROADS.—The following resolution was moved at the Annual Meeting of the Ceylon Chamber of Commerce, held at Colombo on the 26th ultimo:—*That this Chamber views with great apprehension* and regret the long and unwarrantable delays that are taking place on the part of the Right Hon'ble the Secretary of State for the Colonies, in connection with the schemes relating to the Ratnapura Railway, the Passara Extension, and the Manaar Branch Railway, for the construction of all of which, immediate sanction is urgently necessary in the interests of the Colony. and they desire that the strongest possible remonstrance be made to the Colonial Office on the subject."—*Railways.*

MANCHURIA RAILWAY DEVELOPMENT.—The correspondent of the *North China News* writes under date of April 17.—The purchase price of the Hsinmintun-Mukden railway is Yen 1,660,000.

Half the capital of the Hsinmintun-Mukden and Changchun-Kirin railways will be borrowed from the South Manchuria Railway Company. The term of the loan for the Hsinmintun railway will be eighteen years and of the Chang-chun Railway twenty years, and the amounts will be unredeemable until the full expiration of those terms. The chief engineers and accountants are to be Japanese, who will have full *responsibility for the lines.*

INDIAN RAILWAY EXTENSION.—It is officially anticipated that during the year 1907-08 a total of 832.02 miles of new railway will be opened for public traffic in India. Of the total mileage 171.73 miles will be on the 5′ 6″ gauge; 473.76 miles on the 3′ 3¾″ gauge; and 186.53 miles on special (2′ 6″ and 2′ 0″) gauges. The Railway System and Railways contributing to the total mileage in varying proportions are the following:—Eastern Bengal, Nagda-Muttra, North Western, Bengal-Nagpur, East India, Great Indian Peninsula, Assam Bengal, Burma Railways, Nilgiri Railway, Bezwada-Masulipatam Railway, Rohilkhand and Kumaon, Gackwars Mehsana, Jaipur Railway, Purulia-Ranchi Railway, Shahdara (Delhi), Saharanpur Light-Railway, Dholpur-Bari Railway.—*Capital.*

THE KOWLOON-CANTON RAILWAY.—The work on this railway is being pressed forward apace, and much real work has already been done. The real piece of work which is now to be attacked in earnest is the boring of the tunnel through the range of hills that rises behind the Kowloon Hinterland. This has been already begun, but the nature of the rock met with has proved that the task will not be an easy one. Big granite boulders are being met with, and these lie embedded in masses of decayed granite, so that a good deal of timbering has to be done to keep everything safe whilst blasting is going on. On the other hand, gangs of coolies are at work and these have already built much of the line on the south side of the hills, and they are also at work on the north side, so that there are really three parts of the line being worked at one and the same time.—*N. C. Daily News.*

TSITSIHAR-AIGUN RAILWAY.—The Tartar General of Heilungkiang or the Amur province has completed arrangements for the construction of a railway which will connect Tsitsihar, the capital, with the city of Aigun in the same province. Two million taels have been subscribed by the merchants and landowners of the Amur province and there is every indication that the road will be built in its entirety by local capital. In fact Tartar General Cheng-Teh-ch'uan has filed a protest with the authorities at Peking against permitting the Russians to have any hand in the construction or the direction of the road. At the present time all the sleepers needed for the proposed line are being cut from the great forest of the province and a large contract for rails and other materials has been placed with the Hanyang Steel and Iron Works of Hankow. The surveyors have reached a point called Yachau, about twenty miles from the capital. Construction work will be commenced at once.

RAILWAY BANK FOR SZECHUAN.—H. E. Hsi Liang, retiring Viceroy of Sze-chuan, has memorialized the Throne respecting the establishment of a railway Bank at Chengtu to have charge of the financial affairs in connection with the building of the proposed Chuan Han or Szechuan-Hankow trunk line, with pure Chinese funds.

According to the memorial, the railway company has already subscribed about Tls. 7,000,000 from the native gentry, merchants and others in Sze-chuan province.

As this money is quite sufficient for the construction of the first section from Chengtu to the treaty port of Chungking, the memorialist anticipates that the constructional work may be commenced within the course of May, of the current year, without further delay so that the rich and vast province of Sze-chuan may be connected with the other Yangtsze provinces by railroad, for facilitating communications in the course of the next few years.

RAILWAY EQUIPMENT.—Foreign trade opportunity No. 750 stated that, according to official advices received by the Department of State, the South Manchuria Railway Company, which is under the direction of the Japanese Government, had decided to adopt the American system, and to place large orders for materials in the United States as an expression of appreciation of America's friendly attitude toward Japan. The Department of State has now received a dispatch on this subject from Ambassador Wright, of Tokyo, stating that he has been informed that the South Manchuria Railway Company will require one hundred and fifty (150) locomotives, besides rolling stock and other supplies, which in all will aggregate in the neighborhood of ten million yen (about $5,000,000) Two firms in Japan that represent American locomotive works and manufacturers of railway supplies have been furnished with specifications for the purpose of presenting bids. The addresses of these will be supplied to inquirers by the Bureau of Manufactures.

PUBLIC AND PORT WORKS, WHARVES, ETC.

UNO HARBOR WORKS.—The inauguration ceremony of the Uno Harbor works, Japan, took place last month. The work will extend over three years and the estimated cost is Yen 338,757.

CALCUTTA CEMENT CONTRACT.—Messrs. Balmer, Lawrie & Co. have been awarded the contract to supply 5,000 barrels of cement by the Calcutta Port Works. The price is Rs. 33,437-8-0. The Gillingham brand was selected.

BURMA CANALS.—Provision has been made for working expenses on the Shwebo Canal. The expenditure on construction on Burma Canals during 1907-08 will be as follows:—Shwebo Canal Rs. 1,99,000; Mon Canals, Rs. 7,83,000; Yeu Canal, Rs. 18,000.

TOKIO HARBOR WORKS.—The Japanese government is arranging for a foreign loan of twenty million yen in order to carry out the projected harbor works construction at Tokio. It is understood that the loan will be placed through the Industrial Bank at Tokio.

INDIAN IRRIGATION.—The total canal irrigated area of the spring crops of the Punjab to end of February is returned as 4,835,947 acres as against 4,382,386 acres in the corresponding period of 1906. The large increase in area this year is shared mainly by wheat, sugar-cane, gram and winter oilseeds.—*Capital.*

TOWN HALL FOR YOKOHAMA.—The residents of Yokohama are considering the proposal to build a three storied building on the site of the old building which was burned, at a cost of a million yen. It will be indicated as a monument commemorating the fiftieth anniversary of the opening of the port of Yokohama to foreign trade.

YOKOHAMA WATERWORKS EXTENSION.—The municipal authorities of Yokohama are contemplating the enlargement of the present system of reservoirs so as to increase the capacity to take care of a population of one million persons. It is proposed to tunnel a distance of three miles to the upper part of the Doshi River for the new supply.

STRAITS SETTLEMENTS WATERWORKS.—The Straits Settlements *Government Gazette* publishes the text of a bill to enable the municipal commissioners to borrow $8,145,410 for the construction of waterworks to be divided as follows: $60,000 for the extension of filters, $3,834,460 for Kalang reservoir and land and $3,660,950 for Selitar works.

NEW WELLINGTON GRAVING DOCK.—*The Australasian Hardware and Machinery* announces that John McLean and Co. have been awarded the contract for the construction of the Wellington graving dock, New Zealand, and work will commence at once. The contract price is £196,261 and the time allowed for the completion of the contract is four years.

NEW WHARVES AT KOWLOON.—The contract for the construction of extensive godowns and wharves at Blackhead Point, Kowloon, for Messrs. Holt and Co. has been awarded Messrs. Howarth, Erskine and Co. Besides the godowns the constructions will consist of a long pier slanting out into the harbor of a length sufficient to accommodate the largest of the Blue Funnel steamers and two smaller piers for ordinary craft.

FUSAN WATER WORKS.—A telegram from Fusan says that the sum of 1,520,000 yen, needed for the construction of water-works at Fusan, was voted on April 4 by the Japanese Residents' Association there. The contract will be given to the Water Works Department of the Korean Government and work will be started shortly. Of the above amount, the sum of 350,000 yen will be disbursed by the Korean Government as a subsidy.—*Japan Advertiser.*

BRISBANE WATER SUPPLY.—The expert employed by the city of Brisbane to make a report on the comtemplated imcrease of the city's water supply recommends a system with a capacity to supply daily 10,000,000 gallons and estimates the cost at about £552,000. The *Australasian Hardware and Machinery* gives the principal items of this estimate as follows:—£37,000 for a dam across the Brisbane River, £132,000 for a pumping station, with the requisite machinery in connection with the forementioned dam, and £67,000 for another line of 42-in. steel pipes taking the place of the present 24-in. line from Mt. Crosby. Taking the first instalment whose immediate carrying out is recommended, "the annual payment will amount to £13,100, making the total cost for operating expenses and capital charges £24,040 per annum, including the present cost of operating the Mt. Cosby pumping station." The expert is an American engineer named Allen Hazen.

SHIPBUILDING AND GENERAL MARINE, FISHERIES, ETC.

SHIMONOSEKI DOCK CO.—A number of Japanese merchants at Shimonoseki contemplate the formation of a dock company, there with a capital of yen 350,000.

MOJI DRY DOCK CO.—A foreign syndicate has agreed to furnish five million yen or half the capital required to float the proposed company. As soon as the legal formalities are concluded work will be commenced.

SOUTH MANCHURIA DEEP FISHING.—The Chinese Deep Fishing Co. of Kaiping has granted a concession to a Japanese company for fishing rights along the coast of Southern Manchuria on a royalty of Tls. 5,000 annually.

BIG BUOY AT KOBE.—One buoy capable of accommodating vessels of 20,000 tons has been placed in position, off Onohama, Kobe. In addition to this the harbor authorities there propose to place five more buoys capable of holding vessels of over 10,000 tons.

DREDGER FOR PENANG.—The huge dredge *Crab*, which will be used for dredging and deepening the Penang harbor, arrived recently at Penang. The capacity of this dredge is 350 tons an hour. It was constructed in Renfrew and left that port for Penang on February 2.

JAPANESE STEAMER LAUNCHED.—The Hozan Maru, 2500 tons, and a speed test of 13½ was launched from Kawasaka dock yards for the Osaka Shosen Kaisha, April 12. This is the first of two steel spar deck steamers ordered by the company. The other is now being constructed.

WIRELESS STATION AT CHOSI, JAPAN.—Pacific steamers will soon have the benefit of a wireless station at Chosi in the Chiba prefecture near Yokohama. It is understood that it will be completed in a few weeks. All Japanese liners are expected to be equipped with wireless apparatus at an early date.

SUNGARI STEAMSHIP CO.—The Sungari Steamship Company, engaged in navigation between Harbin and Chulan-chen on the Sungari under the promotion of some influential merchants in Kirin, has decided to increase its capital, to increase its steamers and extend the line as far as Kirin, Pedne, Tsitsihar and Sanhsing.

THE NISSHIN STEAMSHIP COMPANY.—The amalgamation of the Yangtze river services of the Nippon Yusen Kaisha, the Osaka Shosen Kaisha and the Daito and Hunan Steamship Companies, in order to establish a company under the style of the Nisshin Steamship Company has been consummated and an inaugurated general meeting of the Company was held at the offices of the Nippon Yusen Kaisha on March 25.

FOOCHOW DOCKYARD.—Peking is considering a proposal to transfer the government dockyards at Foochow to a private company under the stipulation that all warships built in the yard and all ammunition made in the arsenal be furnished only to the imperial government. In view of the fact that the dockyards have been a failure under official management it is believed that the transfer will be approved at Peking.

OSAKA SHOSEN KAISHA.—A contract has been signed between the Osaka Shosen Kaisha and the Kawasaki Dockyard and Mitsubishi Shipbuilding Yard for the construction of six steamers. The steamers are to be used by the O. S. K. for its new American service, and each of them will be of 6,000 tons with a speed of 14 knots. The cost of construction will be 1,100,000 *yen* per boat and all will be completed in three years.

AMUR FISHING RIGHTS.—The inhabitants of the city of Nikolaevsk at the mouth of the Amur river, have petitioned the Russian Government that, in case liberty to fish at the mouth of the Amur river is granted to the Japanese, it should be on condition that the Japanese be subjected to the Russian local fishing regulations and that the Japanese employ Russian labor. They declare that unless such stipulations are enforced Nikolaevsk will be completely ruined commercially.

JAPANESE WHALING INDUSTRY.—There are 27 Japanese companies engaged in the whaling industry but the reports for the last year of a few of these companies are not encouraging. The Asahi Fishing Co. had bad luck and lost its fishing fleet through inability to meet its obligations, and other newly launched companies are lacking in enthusiasm. The old companies, however, have managed to announce fair dividends and there is prospect of a better season this year.

LIAO RIVER SAILING SHIP CO.—The Japanese have inaugurated in Newchang what they style the Liao River Sailing-ship Company," the vessels of which are intended to carry cargo between points on the Liao River, one of the termini being the port of Newchwang. A joint syndicate of Chinese and Japanese has agreed to construct a tramway at Mukden. The trams are first to be dragged by horses instead of being propelled by electricity. Probably this last will follow in due order of time.—*North China Daily News.*

RUSSO-CHINESE STEAMSHIP COMMERCIAL CO.—It is reported by the Japanese Commercial Agent at Vladivostok that some leading Russian business men are contemplating establishing a shipping association under the appellation of the Russo-Chinese Steamship Commercial Co. The service will be opened between Vladivostok, and India via Saghalien, Nikolaevsk, the China coast and Indo-China. The firm intends to extend the route to European Russia in the future when the number of steamers have been increased.

YANGTSZE STEAMSHIP CO.—The establishment meeting of the new Yangtsze S. S. Company, formed by the amalgamation of the principal Japanese services, was held at the head Office of the N. Y. K. at Tokio on March 25. The Company's plans, as set forth in the prospectus, were approved, and the following appointments of officials were made:—Managing Director, Mr. Shiraiwa; Directors, Baron Shibusawa, and Messrs. Kondo Rempei, Tosa Kotaro, Takeuchi Naoya, and Nakahashi Tokugoro. It is said that Mr. Ishimoto Kuninosuke, Chief Secretary of the Department of Communications, will be appointed President of the Company.

MINING, MINERALS AND THE METAL TRADE

JAPANESE OIL COMPANY.—A telegram from Takata under date of March 24 says that a scheme to establish a new kerosene oil company of 1,000,000 yen capital has been promoted there.

JAPAN SALT CO.—A salt trust has been organized in the prefecture of Kagawa with a capital of Yen 1,000,000. Branch offices will be established in all the principal cities of the empire.

JAPANESE BRONZE WARE.—Bronze ware manufacturers in Takaoka, Japan, which district is noted for bronze work, have agreed to form a company with a capital of $500,000 for the manufacture of their ware.

COAL-MINING IN AFGHANISTAN.—The Amir of Afghanistan has requested Dr. Walter Saise, of Giridih, East Indian Railway, to procure him coal-mining engineers to open out coal mines in Afghanistan and to instruct Afghans in coal-mining.

ROYAL DUTCH LANKAT PETROLEUM CO.—The capital of the Royal Lankat Dutch Petroleum Company, says a Hague telegram dated March 12, has been increased by 50 millions of guilders. Ten millions of the amount will go towards buying up the Shell Company's holdings in Borneo.

HINODE COLLIERY, FIREBRICK AND SALT MANUFACTURING CO.—The promoters of this company are Count Yoshii, K. Oishi and M. Yokoyama and the capital stock has been fixed at Yen 5,000,000. The purpose of the company is to engage in coal mining, the manufacture of firebrick and salt.

TEA TRADE IN ILI PROVINCE.—The military governor of Ili province has announced that he will establish a large tea firm in that province for the purpose of supplying the large tea trade of Mongolia and Ili now in the hands of the Russian merchants. This firm will handle Chinese tea exclusively.

GLASS FACTORY FOR SHANGTUNG.—A glass factory has been started at Poshan, Shantung. The capital is estimated at 1,000,000 taels and the Government of Shantung, through H. E. Yang, is interested for 100,000. The technical leader and all experts are German. The factory will produce window, mirror, and other kinds of glass-ware.

OPPOSE STANDARD OIL.—The Standard Oil Company are desirous of getting permission to erect oil-tanks near Wuhu, but the native authorities oppose the idea strenuously, and the Wai-Wu-pu has therefore been requested by the American Minister in Peking to send instructions to the local officials to let the work proceed without hindrance.

KOREA GOLD MINING.—It has been announced at Seoul that the Kolnische Zeitung, a German firm of Chemulpo, has secured important mining concessions north of Pinyang from the Korean government, with the consent of Tokio. The property will be prospected next month. It is understood that several foreign companies were competing for the concession.

COAL IN SOUTH CHINA.—There has been a good deal of prospecting off and on in view of the possibility of finding good coalfields in the Two Kwang. Some likely ones have been discovered in Kwangsi, and a company has been formed for some time with a capital of a hundred thousand taels. The plant has been laid, and apparently coal will soon be ready for the market.

GOLD IN THE NETHERLANDS.—Gold is found at many places in Netherlands India. Celebes and Acheen are reported to be rich in gold. European mining enterprise is pioneering in West Borneo. In West Sumatra, Redjang Lebong and Ketahun are the leading gold mines. In North Celebes, the mines that have come prominently into notice are Totok, Paleleh, and Sumelata.

JAPANESE CEMENT TRUST.—The Tokio Cement Company is the name of the trust recently organized in Japan with a capital of yen 7,000,000 and which has absorbed the principal cement companies in Nippon. The present amalgamation includes the Saga Cement Co., the Kuyushu Cement Co., the Okayawa Cement Co., the newly organized Manshu Cement Co, and the Tohoku Cement Co.

ELECTROLYTIC REFINING AND SMELTING CO. OF AUSTRALIA (LTD.).—This company has been formed in New South Wales and all the different governments of the commonwealth are concerned in securing the extensive works. The purpose of the company is to engage in the treating and smelting of ores and mattes containing copper, silver and gold and to refine electrolytically blister copper produced in Australia.

MURORAN STEEL FOUNDRY.—The Hokkaidol Coliery and Steamship Co., the Armstrong Co., and the Vickers Co. of England are considering a proposition to establish a big steel foundry a Muroran. These companies propose to subscribe equal shares in a concern capitalized at ten million yen. The representatives of the English companies have been in Japan in consultation with the management of the Japanese company.

JAPAN'S SALT INDUSTRY.—According to the latest investigations made by the Department of Agriculture and Commerce, salt manufacturers—not including their employees—throughout the Empire number 29,895. There are 15,836 salt manufacturing fields which cover 8,367 *cho* (1 *cho* about 2.5 acres). The estimate of salt to be manufactured in the present year is 1,385,747,410 *kin*. The production shows an increase of 39,000,000 *kin* over that of the previous year.

COPPER IN TURKESTAN.—According to advices from St. Petersburg to the London *Times*, a syndicate has been formed there for the exploitation of the rich copper mines in Russian Turkestan. The syndicate has acquired rights over 15,000 acres of territory. The district is said to comprise the finest copper-producing area in the whole of the Russian Empire. The company will shortly be formed with an initial share capital of 1,500,000 roubles ($750,000).

INDIAN OIL FIELD.—The Burma Government has granted a prospecting license for petroleum over an area of 10 square miles, near the Chaungyin village of the Kalenea township of Kaleungoin, the Upper Chindwin district, a tract of country which has not hitherto been explored.

The authorities are also granting licenses to prospect for oil over certain "blocks" of the Singu (Yenangyaung) oil field in the Myinpyan district, a comparatively new field.

INDIAN COAL EXPORTS.—The Coal Export figures for the two months ending 28thFebruary, 1907, were tons 391,319 against 407,898 tons same time last year. Bombay has taken tons 147,231 against 147,327 tons for the corresponding time last year. To Penang and Singapore the figures were tons 19,555 against 41,176 tons last period. To Ceylon, Madras, Karachi and Burma, the figures for current and previous periods were respectively tons (26,224—59,588), (48,851—21,100), (44,319—40,401) and (63,168—42,779).—*Capital.*

JAPANESE PETROLEUM INDUSTRY.—The Hoden Petroleum Co. at Takata has launched a scheme whereby it will control and operate all the oil fields in the Niigata prefecture, Hokkaido, Totomi province, and Formosa. This means an increase in the capital stock of the company of yen 1,000,000. The demand for oil for fuel and illuminating purposes has been increasing yearly and two-thirds of the product used has been imported from foreign countries. The purpose of the Hoden Co. is to develop all the oil fields and meet the entire domestic demand.

SUBSTITUTE FOR CEMENT.—It is reported in Japan that *kazon bai* (volcanic ashes) can be employed as a substitute for builders' cement. Large quantities have been found in the district of Yobiko, near Karatsu, says the *Nagasaki Press*, and a brisk demand for it has been created by the great increase in the price of cement. Hitherto the business has been conducted on a very small scale but a company will shortly be formed with a capital of one million yen to develop the industry. Dr. Hiraga, of Osaka, recently inspected the district and he reports that the prospects of the company are distinctly good.

TUNGKUANSHAN COPPER MINE.—The Chinese of the district of Tunglin who are interested in the development of the Tungkuanshan Copper mine have rejected the proposal of the London and China Syndicate comprised of British and Chinese capitalists to work the mine with local capital. The local capitalists claim that the concessionaire, Sir John Keye, had agreed to commence boring and otherwise prospect the belt within a specified time and that this period had expired without the agreement being fulfilled. For this reason the local Chinese ask that the agreement be cancelled. Sir John Gordon, representing the syndicate, protests against the cancellation and claims that work was commenced within the time stated in the original agreement. It is understood that the syndicate is willing to allow the natives 40% of the stock for an extension of its development rights in that section.

JAPANESE MINERAL OUTPUT.—Consul-General H. B. Miller sends from Yokohama the following in reference to the output of the principal mineral products in Japan during last year:

The Chugai Shogyo Shimpo states that the mining output generally showed more or less increase, with a

tendency of still further increase in the future. The production of coal amounted to about 13,000,000 tons, an increase of 1,500,000 tons; the output of petroleum to 1,510,000 koku (koku, 40 gallons), an increase of about 200,000 koku; the gold propduced up to the end of November was 720 kwamme, equal to about 5,976 pounds; silver, 19,000 kwamme, or about 157,700 pounds, both showing a slighter decrease. The output of iron ore was 17,000,000 kwamme, or 141,100,000 pounds, an increase of about 6,000,000 kwamme, and of sulphur 50,000,000 kin (kin, 1⅓ pounds), also showing some increase.

The exports of refined copper from Japan during 1906 up to November were valued at $10,729.000, as against exports of $8,000,000 and $6,380,000 during the same periods of 1905 and 1904. Japanese imports of tube copper, however, also show increases, those for the first ten months of 1906 amounting to $357,500, as against $285,000 and $142,000 in the same periods of 1905 and 1904.

FINANCIAL AND MISCELLANEOUS

JAPAN-KOREA SUGAR MANUFACTURING CO.—This ew company, organized with a capital of Yen 8,000,000 will begin operations as soon as 25% of the capital tock is subscribed.

SUGAR AMALGAMATION.—The Taiwan and Daito Sugar Refining Companies held extraordinary general meetings of shareholders April 12 to consider the amalgamation of the two concerns.

CHINESE COTTON MILLS AND CEMENT WORKS.—Viceroy Yuan Shih-kai is proposing to raise a foreign loan of Tls. 5,000,000 for the establishment of cotton mills and cement works on a large scale.

CANADIAN FLOUR.—The Pacific Coast Mills will be unable to fill further orders from the Orient for flour, according to latest advices even at an advance. As a result the demand will be filled by Manitoba flour.

JAPANESE SUGAR TRUST.—The proposed incorporation of the Daito Seito Kaisha (Great Eastern Sugar Manufacturing Company) with the Taiwan Seito Kaisha (Formosan Sugar Manufacturing Co.) was formally settled March 20.

KYOTO AUTOMOBILE CO.—The Kyoto Automobile Company has been organized with a capital of $1,500,000 to operate a public motor service. One hundred vehicles will be first put on the streets, and will maintain a 10-minute service.

TIENTSIN FIRE INSURANCE CO.—The business men of Tientsin have organized a fire insurance company and will operate in Peking, Tientsin and Paoting. It is the purpose of the company to offer protection at a lower rate than now prevails.

BIG JAPANESE BANK.—The scheme to establish a bank with 10,000,000 yen capital, promoted by a number of financiers of Tokio and other places, has matured. The principal promoters of the bank are Messrs. K. Hamaguchi, S. Ohashi and R. Kondo.

AUSTRALIAN TARIFF ON ADVERTISING MATTER.—Many tons of American catalogues and other advertising matter are destroyed yearly by the custom house authorities for the reason that the business men to whom they are addressed refuse to pay the duty chargeable against it.

YOKOHAMA LIFE INSURANCE CO.—The Yokohama Life Insurance Company, organized by Messrs. Ono, Hiranuma, Hara, Mogi, Asada, Otani, Watanabe, Kimura, Higuchi, Ishikawa with a capital of 1,000,000 *yen* was permitted to start business under date of March 7.

BURMA RICE CROPS.—The final official report on the Burma rice crop of the year 1906-07 just published estimates the total area of the crop at 6,974,751 acres as against last year's area of 6,713,382 acres, and the yield in cleared rice at 61,924,000 cwts. as against 57,940,000 cwts.

KOREAN WAREHOUSE CO.—The inaugural general meeting of the shareholders of the Kankoku Soko Kaisha (Korean Warehouse Company) was held at the Tokio Bankers' Club on March 25. The Company will undertake the business of warehousing and transportation in Korea.

NEW KOBE COMPANY.—A new Kobe company named the Toyo Boyeki Kaisha, is being promoted by Messrs. Nishio, Yamamoto, Kuratani, Tanaka Tsutsuma, W. H. Gill and others. The capital is one million yen. The new company will take over the business of the Nishio Shokai, general merchants, in Sakayemachi.

WORLD RUBBER TRUST.—A cablegram from New York announces the formation of a trust by the large American Rubber interests having for its object the control of all the rubber holdings in Java, Sumatra and the middle east. The remarkable development of the rubber industry in the far east is responsible for this movement.

KUANG RUBBER CO.—The Kuang (Selangor) Rubber Company has been registered at London with a capital of £20,000 in £1 shares. To adopt an agreement with W. de Leighton Brooke for the purchase of 1,000 acres of land, near the forest reserve on the Kuang Penchalan Kundang road in the district of Ulu Selangor, State of Selangor. No initial public issue.

JAPANESE BANKS.—The investigation made by the Japanese Department of Finance show that the number of banks throughout the country at the end of March was 2,237 and the amount of capital 590,488,669 yen. This shows an increase of five in the number of banks and an increase of 23,492,400 yen in the amount of capital as compared with the figures at the end of February.

CEYLON TRADE OPPORTUNITIES.—An American located in Ceylon desires to open correspondence with American manufacturers who wish to export steam plows, carriages, motor cars and flour to that island, and with importers who are prepared to handle Ceylon tea, cinnamon, cardamons, desiccated cocoanuts, cocoanut oil, plumbago, citronella oil and coir rope and fiber.

CABLE AND TELEPHONE FOR BANGKOK.—The Siamese minister of public works has received the sanction of the King to the proposal to acquire and instal an entirely up-to-date telephone system in Bangkok. The system decided on is the one known as the central battery system. The installation will go to public tender. Phya Sukhum is now engaged arranging for a new cable from Koh-Si-Chang to Sirachi with connection to Bangkok.

MANILA AUTOMATIC TELEPHONE CO.—A franchise has been granted President Brown of the Automatic Telephone Co. provisional upon the approval of the municipal board of the city of Manila and all the recognized commercial bodies. The Philippines Telephone and Telegraph Co. now operating a system in the city is making a hard fight in the different chambers to shut the automatic people out.

ISSUE OF PAPER MONEY.—The Peking branch of the National Bank of China has issued Tls. 1,000,000 worth of notes for circulation in the metropolis by sanction of Pu Ting, President of the Ministry of Finance, and according to an official proclamation from the Chinese Authorities the people are ordered to accept these notes without discount so as to assist the Government Bank, which is the only one of its kind in China.

KIRIN BREWERY SOLD.—The Kirin Brewery has been sold for $1,000,000 gold to a Japanese company, states the *Deutsche Japan Post*. The Kirin Brewery dates from 1886, when it was registered in Hongkong as a British firm. The master brewers have always been Germans. The new company has been formed by the partner of the firm, Heidiya G. Yonei. This firm has for many years held the general agency for the whole of Japan.

JAPANESE BANK IN SIBERIA.—The *Amurski Vestnik* announces that the Japanese intend to assist the development of their commercial dealings with the Russian merchants in the Far East by opening a branch of the Japanese bank "Dsju Hatschi Tchinko" at an early date. This branch was to have been opened at Vladivostok last August, but the negotiations fell through for the time. This will be the first branch of a Japanese bank to be opened in Siberia.

EAST ASIATIC INDUSTRIAL SYNDICATE.—According to Tokio papers, the East Asiatic Industrial Syndicate, organized by French and Belgian capitalists in December last, have established their Tokio office at Uchisaiwai-cho to invest capital in all favorable enterprises in Japan in conjunction with native capitalists. The syndicate contemplate the establishment of engine works in the vicinity of Osaka with the aid of the Minister of Agriculture and Commerce.

TANDJONG RUBBER CO.—The Tandjong Rubber Company has been registered at London with a capital of £100,000 in £1 shares. To acquire from Harrison and Crossfield, of 3, Great Tower-street, E.C., an option for the purchase from the Algemeene Consignati Bank of Amsterdam of the lease or land concession of the Tandjong Kassau Estate, in the regency of the East Coast of Sumatra, consisting of about 4,782 bouws, or 8,460 acres, and to carry on the business of growers of rubber and other produce, etc.

DEUTSCH-ASIATISCHE BANK.—This institution is one of the most important German enterprises in the far east and to its many branches is due the remarkable expansion of German trade in Eastern Asia. The Deutsch-Asiatische Bank is carrying on business in Eastern Asia. Its principal establishment is in Shanghai and it possesses branches in Calcutta, Hankow, Hongkong, Peking, Tientsin, Tsingtau, Tsinanfu, Yokohama and Kobe. It also coöperated in introducing to the international market a Japanese loan and the first financial operation of Siam.

THE MANILA HOTEL.—Messrs. Lack and Davis have made a proposition to the Philippines commission in which they offer to exchange land for an hotel site on the new Luneta Extension and they also agree to build an hotel costing at least 400,000 pesos as one of the conditions of the exchange. The firm ask that in case the proposition is accepted the property acquired from the government be exempted from taxation for the period of construction and for ten years thereafter. The matter will soon be considered by the commission.

JAPANESE COTTON MILLS.—There are at present 46 cotton mills in this country. The number of men and women employed is estimated at 15,270 and 66,350 respectively and the average wages of these employes is 38 *sen* for men and 23 *sen* for women a day. A comparison with the corresponding period of last year shows an increase of 700 men workers and 3,280 women workers, while the wages have risen by one sen per man and two *sen* per woman. Along with the ever growing skill of the men, the increase of cotton gins and the improved condition of machinery, the productive power of these mills is daily increasing.

THE YALU TIMBER INDUSTRY.—According to the terms of a former treaty between China and Japan it was arranged that a company should be formed, with Chinese and Japanese capital, for the purpose of cutting lumber along the Yalu and exporting it to whatever places where a market could be found for it. As a kind of supplement to that understanding a new agreement has lately been concluded between the Wai Wu-pu and the Japanese Minister by which the area in which the Company is to operate shall be extended to the Kwuntung River, and the duration of the concession to 99 years.—*Japan Advertiser.*

LIFE INSURANCE IN JAPAN.—According to Japanese papers life insurance business in Japan has shown a steady improvement since the war. New policies issued by the Meiji Life office during the first half of last year represented -Y-3,900,000; those of the Nippon Life -Y-3,700,000; those of the Daido Life -Y-3,400,000, roughly, -Y-36,000,000 including all others. The amount for the second half of the Meiji reached -Y-5,700,000, totalling to -Y-6,000,000 and Daido -Y-5,000,000, totalling to -Y-48,900,000 including all others. When these two totals are added to the amount contracted previously, the grand total reaches the sum of -Y-324,000,000.

PENANG SYNDICATE.—The Penang Syndicate has been issued with a capital of £60,000 (600 £100 ordinary and 200 1s. deferred). To acquire certain estates, plantations, and lands in the Province Wellesley, Straits Settlements, to adopt an agreement with L. Huttenbach, and to carry on the business of tea, coffee, sugar, tapioca, pepper, sago, india rubber, cocoanut, tobacco, and general produce growers, etc. No initial public issue. Articles authorize directors to issue 450 ordinary shares; remaining 150 not to be issued without consent of the holders of two-thirds of ordinary shares previously issued. First directors (not less than three nor more than five) not named. Qualification, five ordinary shares. Remuneration according to profits.

PINE-APPLE TRUST.—According to the *Straits Times* an attempt is being made to corner the pine-apple industry in the Straits Settlements and that paper believes that such a movement would have the effect of reducing the demand both locally and in Europe on account of the unnatural advance in prices.

There are now fifteen independent pine apple factories in operation in Singapore alone and the fruit exported each year amounts to 550,000 cases, valued at approximately $3,000,000. The United Kingdom takes about 295,000 cases, of the value of $1,500,000, the United States 60,000 cases valued at $300,000, and Sweden, Tringganu, Turkey in Asia, Turkey in Europe, and a number of British possessions the remainder.

SINGAPORE RUBBER WORKS.—The Singapore Rubber Works, whose works are at Pasir Panjang, have decided to go in for a more extensive manufacture of rubber tyres. They have been turning out various articles in vulcanised rubber, for which there are obvious facilities here, in the way of cheap and pure rubber, cheap labor, and the saving of freight on the raw material and the manufactured article. We have seen two samples of the stock tyre products of the factory, and excellent vulcanised rubber they seem, with none of the grittiness and shortness of fibre—rather lack of tenacity—which characterizes the cheaper vulcanized article from Home. Come to think of it, there is an appropriateness in driving about in a rubber tyred vehicle in the Gardens where the rubber itself grew, the native article that has never been across the sea.—*Free Press.*

SOUTH AUSTRALIA'S HARVEST.—The *Observer* estimates that the area under wheat for grain in South Australia this season to be 1,820,000 acres from an average yield of 11¼ bushels per are, making a gross outturn of 20,475,000 bushels. This, if realized, will make the "banner" crop of the State, the harvest of 1905-6, according to the official figures, having been 20,143,798 bushels from 1,757,036 acres—an average of 11.46 bushels per acre. The weather this season has been more favorable than last year, so the sanguine estimate may be realized. It is over 1,000,000 bushels less than the estimate published in our December issue, made by the contemporary journal in Adelaide. It is calculated that there will be a surplus of 455,000 tons. In regard to wheat for hay both journals put it at 300,000 acres against 317,922 acres in 1905-6.

JAPANESE TEA FIRING TRUST.—Five Japanese tea firing companies, the Toyo, Ogasa, Mukinohara, Fujieda, and Kyoyekisha, have lately been purchased by a big Japanese tea refiring company organized by Mr. Rempei Kondo, President of the Nippon Yusen Kaisha, and capitalists in Tokio and Shizuoka prefecture, under the style of the Nippon Kiodo Seicha Kaisha. The capital of the concern is yen 1,000,000 and the face value of the shares yen 50. It is said that the company will have its own refiring plants running from the coming tea season. This company will receive an allowance of yen 20,000 annually from the Shizuoka Tea Traders' Association in Shizuoka for three years. Besides this unusual advantage, the Nippon Yusen Kaisha will do all in its power to further the prosperity of the new company in return for preferential treatment by the latter in the matter of freight, consisting of tea, which will be given almost entirely to the N. Y. K.

SHANGHAI-PAOSHAN LAND CO.—The prospectus of the Shanghai-Paoshan Land Co. with an authorized capital of Tls. 1,000,000 has been issued and a large part of the stock subscribed. The purpose of the company is to purchase and develop 70 mow of land in the Paoshan district situated on the north of the international settlement at Shanghai. The prospectus describes the plot of land more definitely as follows:—The three estates of which it is composed abut indeed on to the south, west and north boundaries of the park; they will be approached directly by the North Szechuen Road Extension and a bird's eye view of a provisional plan for developments shows area for eigthy-two houses, together with stabling, estimated to produce rentals of from Tls. 60 to Tls. 75 per month according to size and aspect. On the west (the longest) side the railway forms a barrier against any possible encroachment from Chinese houses, while to the south there has already sprung up the populous suburb of over a hundred foreign houses.

TELEPHONE CONNECTIONS FOR SUBURBAN CAR LINES

The rapid extension of the inter-urban electric railway in this country, and particularly in New England and the Middle West, has resulted in the development of a new set of train dispatching problems. One of the most satisfactory means for meeting these is some modified form of telephone.

In speaking on this feature of telephone development before a recent meeting of the Street Railway Club in Boston, C. J. H. Woodbury said:

In the early days of electric railroads when the motor was merely a substitute for the horses on the same cars and even at similar speed, there was not the requirement of any signalling system more than the unfilled need which had already existed in the case of horse cars, but with the expansion of the carrying capacity of a road both as to size of cars and speed of propulsion, and, above all, the long distances of the inter-urban roads, conditions became radically changed and were comparable to those of the steam roads. This development of the transportation facilities became so much more rapid than that of the signalling that the early electric roads were afflicted with a number of mishaps which gave rise to many serious apprehensions as to the advisability of this change of power.

In electric railways the conditions of speed are comparable to those of steam railway trains and the weight of the cars sufficient to cause destructive results in case of collision, while the requirements of good service at these speeds demanded that there should be constant information of the positions of the various cars en route.

The street railways had the advantage of precedent, and in New England the Worcester Street Railway began to use the telephone in 1899, and since its consolidation with other companies these ramifications extend over a large range of territory throughout the heart of the commonweatlh.

The application of the telephone for train dispatching has resulted in a marked economy of both plant and operation in that the ability of the superintendent to be informed as to the position of the various cars and to communicate with their operators gives a greater service efficiency to the road. Single track railways in sparsely settled districts can be operated at an efficiency which should otherwise require a double-track road, merely by the use of the telephone for dispatching, because in case of cars failing to join at meeting points when they are due, they may under this direction avoid delaying the prompt car by directing it to proceed to another turnout. In case of failure to meet at scheduled turnouts there is not the risk of collision by one car running wild to the next switch.

THINGS JAPANESE

By Walter J. Ballard.

Special mail advices from Tokio and Yokohama inform us of the following items regarding Japan:

Japan's wheat crop in 1906 was 20,284,762 koku, the largest crop since 1901 and 1,500,000 koku larger than the crop of 1905. For the last ten years the crop has averaged 19,306,229 koku.

Japan's budget for the next fiscal year (beginning April 1) will include an appropriation for a Fine Arts School.

The Ladies' Patriotic Association of Japan is instructed (equivalent to an order which all obey) by its President, Princess Kau-in, to bear in mind the importance of economy and thriftiness.

It was soon after the Japan-China War in 1894-5 that Philippine students went to Japan to study. Since that time the number of such students in Japan has steadily increased. Up to the present time they number seventy-four in all, distributed as follows:

Imperial Universities	10
Tokio High Technical School	6
Foreign Language School	2
Tokio Morning Star School	1
Tokio-Gakuin	9
Marine Products School	5
Kumanioto High Technical School	6
Yokohama Morning Star School	7

The other twenty-eight are scattered among the Fukuka Technical, Kyoto High Technical, Nagoya Technical, Oji paper mills, Nippon Yusen Kaisha Ship Company, Honis Iwamote glass factory and the Honjo Kato porcelain factory.

At the meeting in Tokio of the Economic Association of Japan Dr. Sakatani, the Japanese Minister of Finance, strongly urged the policy of "no more taxes and no more flotation of increasing public loans." In that advocacy the Minister is right at least for Japan's next ten years.

To propagate and sell live fishes The Nippon Fish Culture Company has been formed with $750,000 capital.

The Upaga Dockyard Company, hitherto devoted to ship repairs, is now fitted to construct ships of large tonnage. They built some torpedo boats which gave satisfaction during the recent war.

The Tokio Hydro-Electric Power Company is inaugurated. It has 100,000 available horse power. It will supply all the power needed for electric lighting and street railways inTokio and Osaka and between.

The *Hochi* warns Baron Goto, the President of the South Manchurian Railways, to quit talking and boasting until he has accomplished something. So far he has done nothing but talk. It augurs well for Japan's future when her newspapers speak "right out in meeting."

The *Jiji* says that the Chinese Commissioners to Manchuria were treated as foreigners in the Russian sphere but as brothers in the Japanese part. Their reports, thinks the paper, will lend a good deal of influence toward creating favorable feeling in China toward Japan.

The *Nippon* advises Japanese politicians to ease up on politics and go to work earning something (good advice that to American professional politicians), or at least, to interest themselves in earning enterprises. It also urges business men to take more interest in normal politics. In other words politics to help business, not politics as a business.

The *Nichi-Nichi* says that the development of Manchuria is a step toward the preservation of peace in the Far East. The editor is right in that statement.

Princes and personages decorated with the grand order of the junior grades and members of the Japanese Parliament and all of the foreign diplomatic corps were honored by invitations to the Imperial New Year's party at the palace in Tokio.

Italy is getting Japanese seed rice through the hands of the Italian Ambassador to Japan.

The *Hochi* advocates Japanese participation in the coming session of the International Parliamentary Congress.

The municipality of Tokio is improving the streets, dredging the Sumida, constructing the Tokio harbor, creating the Tokio Exposition, municipalizing the street railways, investigating the municipal organization and is in various other enterprises, none of which, says *Jiji*, has made any progress. The editor quotes: "One thing at a time, and that done well, is as good a rule as we can tell."

FAR EASTERN PROGRESS

The general manager of the Laou Kung Mow Cotton Spinning and Weaving Company (Limited), at Shanghai, states that the balance of the credit of profit and loss account for 1906 amounts to 146,555 taels (Shanghai tael, $0.726), subject to audit, out of which the board recommend a payment of a dividend of 8 taels per share, which will absorb 57,264 taels.

It is proposed to form the Canton River Bridge Company (Limited) with an initial capital of $1,000,000. Three bridges across the river shall, it is suggested, be constructed at convenient places, the first near Yau Lan Mun, where the ferry jetty stands. If the fees collected are enough to pay for the interest on capital, etc., the second and third bridges shall be started in succession.

BRITISH COMMERCIAL ATTACHES

The new system of commercial attaches, which is shortly to be introduced by the British Foreign Office, has been explained in some detail to the London Chamber of Commerce by Lord Fitzmaurice.

The present system is that the commercial attaches resident abroad are responsible for certain areas, which often include several states, with headquarters at a mission. This system has given good results, but it was also found that long and continuous residence abroad makes it difficult for the commercial attache to keep in touch with British commercial and industrial interests and developments. Moreover, much of the work done by them abroad might very properly be left to the members of the diplomatic and consular services. It is now proposed that a member of the mission staff shall, during his appointment at the mission, take charge of the commercial work, receiving special remuneration on this account.

Steps will also be taken to facilitate the discharge of the commercial duties of the consuls by re-enforcing their staff whenever required. The commercial attaches themselves are in future to have their headquarters in London, and will divide their time between special investigations abroad in the interest of British exporters, work in the board of trade or commercial department of the foreign office, and visits to manufacturing districts in the United Kingdom.

It is considered that their work abroad will be more valuable if carried out under the instructions of the foreign office and board of trade, and for particular purposes, than heretofore from foreign missions; and this gain is expected to more than compensate for any additional loss of time and expense in the journey. The position of the commercial attaches in remote countries, such as China, Turkey and other places where special qualifications are necessary, and in Paris, where the presence of the commercial attache is indispensable, will remain unchanged.

The commercial attache will, therefore, become a national commercial traveler, and will be able to devote his whole time to extending his experience of home and foreign conditions; the mere routine portions of his present occupations being left to the specially responsible commercial secretaries in the foreign missions and to the consuls.

The principal changes which are involved by the introduction of the new system are as follows: (1) The posts of commercial agents in Switzerland, United States of America, Russia and Central America will be abolished. (2) The present commercial agent in Russia will be made a commercial attache. (3) The latter and the three commercial attaches now in Vienna, Berlin and Madrid will have their headquarters in London. (4) The current commercial business of the diplomatic missions will be carried on under the superintendence of a specially selected member of the diplomatic staff, who will be designated "secretary in charge of commercial matters," and receive an allowance varying according to the importance of the post.

No change is to be made in the present arrangements at Pekin, Tokio and Constantinople, and Sir H. Austin Lee will remain at Paris as commercial attache. These changes have been sanctioned by the treasury, and the new system will, as far as possible, come into force on April 1. It is not intended that the secretary in charge of commercial matters should undertake special and exhaustive inquiries or that he should devote himself exclusively to commercial work.

The object of the present proposals is to secure systematic and continuous attention to current commercial business on the part of a particular member of the staff. These changes are not intended to diminish the responsibility of the head of the mission for the efficient conduct of this branch of diplomatic duty, or to relieve him from the obligation of carefully following all commercial developments likely to affect the trade of the United Kingdom, and endeavoring in every way to protect and foster British commercial interests.

FAR EASTERN STOCKS AND QUOTATIONS

Courtesy of Messrs. Kadoorie & Co., Hongkong, for May.

STOCK.	WHEN ESTABLISHED	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	WORKING ACCOUNT	DATE	LAST DIVIDEND.	Approximate Yield per cent. per annum at Present Quotation.*	CLOSING QUOTATIONS.
BANKS.											
Hongkong & Shanghai Banking Corporation	1865	$10,000,000	80,000	$125	$125	g £1,000,000; s $11,000,000; i $250,000	$1,721,558	31-12-07	£1.15|- and bonus of £1 @ ex. 2|3½ $24.33 making $40.80 for 1906	4½	915 sales & s. £104
National Bank of China, Ld.	1891	£699,475 10)	99,925	£7	£6	c £12,735 $150,000	$74,099	31-12-05	$2 (London 3|6) for 1903	....	$51
MARINE INSURANCES.											
Canton Insurance Office, Ld.	1881	$2,500,000	10,000	$250	$50	j $1,675,000; j $200,000	$233,638	31-12-05	$20 for 1905	7	$282 sellers
North China Insurance Co., Ld.	1863	£150,000	10,000	£15	£5	g £110,000; s Tls. 100,000; f Tls. 50,000	Tls. 185,529	30-6-06	Interim of ½ for account 1906 at ex. 2-10, 11-16 per tael	6	Tls. 77½ ex div. s.
Union Ins. Society of Canton, Ld.	1867	$3,100,000	12,400	$250	$100	s $3,000,000; g £70,000; f $456,407; j £125,137.15; u $817,628	$1,460,490	31-12-06	Final of $12 making $42 for 1905, and interim of $30 for account 1906	5½	$770 sellers
Yangtsze Ins. Association, Ld.	1862	$800,000	8,000	$100	$60	$850,000; j $136,287; f $ 15,527	$461,476	31-12-06	$12 for year ending 31. 12. 05	7½	$158 ex. div. b.
FIRE INSURANCES.											
Chine Fire Ins. Co., Ld.	1870	$2,000,000	20,000	$100	$20	$1,000,000; x $320,449; f $7,616	$362,980	31-12-06	$6 and bonus $2 for 1905	9¼	$85 sellers
Hongkong Fire Ins. Co., Ld.	1868	$2,000,000	8,000	$250	$50	$1,256,483	$435,236	31-12-06	$40 for 1905	12	$330 sellers
SHIPPING.											
China & Manila Steamship Co., Ld	1882	$750,000 1)	30,000	$25	$25	$7,000	$365	31-12-06	$1 for 1906	6½	$16 sellers
Douglas Steamship Co., Ld.	1883	$1,000,000	20,000	$50	$50	$264,638; i $93,562	Nil.	30-6-06	$2½ for year ended 30-6-06	6¾	$38 sales and b.
Hongkong, Canton & Macao Steamboat Co., Ld.	1865	$1,200,000	80,000	$15	$15	e $250,000; d. i. $600,000; f $144,386	$20,170	31-12-06	$1 for 2nd ½-year making $2.00 for 1906	6¾	$29¾ buyers
Indo-China Steam Navigation Co., Ld.	1882	n £600,000 2)	60,000	£10	£10	£120,000; i £280,958; h £3,999	£2,452	31-12-06	10|- @ ex. 2-1 9-16 = $4.69 for 05.	....	$71 sales
Shanghai Tug & Lighter Co., Ld.	1903	Tls. 1,500,000	20,000	Tls. 50	Tls. 50	i Tls. 40,000	Tls. 3,156	31-12-06	Int. div. of Tls. 2½ ..... % Int. div. of Tls. 1¾ 1906	9	Tls. 52 sales
Do. Preference			10,000							6¾	Tls. 50 buyers
"Shell" Transport & Trading Co., Ld.	1898	£ 2,000,000	2,000,000	£1	£1	£400,000; i £5,167.14-1	£85,355-6-10	31-12-05	1|-(Coupon No. 7) for 1906	2¼	45|- buyers
"Star" Ferry Co., Ld.	1898	$200,000	10,000	$10	$10	$65,000; i $32,957	$218	30-4-06	$1.50 / 75 cts. for year ended 30-4-06	5	$30 sellers
	1900		10,000	$10	$5					3¾	$19½ sellers
Taku Tug & Lighter Co., Ld.	....	Tls. 1,500,000	12) 30,000	Tls. 50	Tls. 50	Tls. 98,000; d Tls. 419,479; e Tls. 62,000; i Tls. 81,200; q Tls. 30,000	Tls. 18,730	31-12-06	Final of Tls. 2 making Tls. 6 for 1906	11½	T. Tls. 52 buyers
REFINERIES.											
China Sugar Refining Co., Ld.	1878	$2,000,000	20,000	$100	$100	o $345,741; e $450,000; r $ 56,848	$9,218	31-12-06	$8 for year ending 31-12-06	6¾	$118 buyers
Luzon Sugar Refining Co., Ld.	1882	$700,000	7,000	$100	$100	none	Dr. $138,523	31-12-06	$3 for 1897	....	$21
Perak Sugar Cultivation Co., Ld.	....	Tls. 350,000	7,000	Tls. 50	Tls. 50	Tls. 100,000	Tls. 8,935	31-8-06	Tls. 4. (8%) for year ending 31-8-06	4¾	Tls. 85 buyers
MINING.											
Chinese Engineering & Mining Co., Ld.	1901	£1,000,000	1,000,000	£1	£1	d £110,000; h £12,289	£12,546	28-2-06	Final of 1|6 for account year ending 28-2-07	4¾	Tls. 14 b. ex. div
Oriental Consolidated Mining Co., Ld.	1901	G. $5,000,000	y 500,000	G. $10	G. $10	none	G. $909,050	30-6-06	Interim of 50 cts. for % 1906	10	G. $10
Raub Australian Gold Mining Co., Ld	1892	£200,000	150,000	£1	18-10	£4,837	Dr. £15,481	31-3-06	No. 12 of 1|- = 48 cents	....	$7 sellers
			50,000	£1	£1						
DOCKS, WHARVES AND GODOWNS.											
Fenwick (Geo.), & Co., Ld.	1889	$450,000 z	18,000	$25	$25	$64,124	$10,335	31-12-06	$1¼ for year ending 31-12-06	9¾	$18 sales
Hongkong & Kowloon Wharf & Godown Co., Ld.	1886	$2,000,000	40,000	$50	$50	$550,000; t $23,152; z $30,000	$3,047	31-12-06	Final of $2½ making $5 for 1906	6	$85
Hongkong & Whampoa Dock Co., Ld.	1866	$2,500,000	50,000	$50	$50	v $50,000; $49,000	$400,933	31-12-06	$6 for 2nd ½-year making $12 for 1906	10½	$115 sellers
New Amoy Dock Co., Ld.	1892	$67,500	10,000	$6¾	$6¾	$88,000	$2,618	31-12-06	50 cts. for 1906	4½	$11½
Shanghai Dock & Engin'g Co., Ld.	1906	Tls. 5,570,000 13)	55,700	Tls. 100	Tls. 100	Tls. 1,000,000	Tls. 3,997	30-4-06	Final of Tls. 4 making Tls. 8 for 05-'6	9½	Tls. 85 buyers
Shanghai & Hongkew Wharf Co., Ld.	1902	Tls. 3,600,000 14)	36,000	Tls. 100	Tls .100	b Tls. 487,210; r Tls. 100,000; p Tls. 190,100; e Tls. 75,000	Tls. 23,117	31-12-06	Final of Tls. 10 making Tls 18 for year ending 31-12-06 (on old capital)	8¼	Tls. 217½ sales
Vulcan Ironworks, Ld.	1905	Tls. 500,000	1,000	Tls. 500	Tls. 500	.....	Tls. 12,187	31-8-06	Tls. 50 for year ended 31-8-06	10	Tls. 500 sellers
Yangtsze Wharf & Godown Co., Ld.	1902	Tls. 250,000	2,500	Tls. 100	Tls. 100	Tls. 50,000	Tls. 12,936	31-12-05	Tls. 18 for 1905	7¾	Tls. 230
LANDS, HOTELS AND BUILDINGS											
Anglo-French Land Investment Co., Ld.	1906	Tls. 2,500,000 3)	25,000	Tls. 100	Tls. 100	Tls. 15,000	Tls. 3,388	28-2-07	Tls. 6 for 14½ months ending 28-2-07	6	Tls. 100 buyers
Astor House Hotel Co., Ld.	1901	$750,000 4)	30,000	$25	$25	$30,000	$8,418	30-6-06	$3 for year ending 30-6-06	10	$30 sellers
Astor House Hotel, Ld. (Tientsin)	....	Tls. 100,000	2,000	Tls. 50	Tls. 50	Tls. 35,000; e Tls. 10,000	Tls. 1,013	28-2-06	Final of Tls. 6½ making Tls. 11½ for year ending 28-2-06.	8½	Tls. 140 buyers
Central Stores, Ld.	....		6,000		$15	$15			$1.80 for 1906	10	$18 buyers
Do. (Founders')	....	$451,845	123		$15	$12	n. $1,000	$9,178	31-12-06	None	....	$300 buyers
Do. (New Issue)	1904		24,000		$15	$15				7% 1906	....	$14¾
Hongkong Hotel Co., Ld.	1866	$600,000	12 000	$50	$50	$648,975; r $26,075	$371	31-12-06	$5 for 2nd half-year making $10 for 1906	8½	$118
Hongkong Land Investment & Agency Co., Ld.	1889	$5,000,000	50,000	$100	$100	e $250,000	$56,218	31-12-06	Final div. of $3½ making $7 for 1906	6½	$107½ sellers
Hotel des Colonies Co., Ld.	1902	Tls. 225,000	9,000	Tls. 25	Tls. 25	h Tls. 29,783	Tls. 1,935	31-3-06	Final of 6% = making 10% for 1905	16¾	Tls. 15½
Hotel Metropole Co., Ld.	1904	$200,000	2,000	$100	$100	none	$4,699	30-6-05	Final of $6 making $10 for the year	12½	$80
Humphrey's Estate & Finance Co., Ld.	1887	$1,500,000	150,000	$10	$10	i $208,386; e $50,000	$11,567	31-12-06	80 cents for 1906	7¼	$11 sales

FAR EASTERN STOCKS AND QUOTATIONS—(CONTINUED.)

STOCKS	WHEN ESTABLISHED	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	WORKING ACCOUNT	DATE	LAST DIVIDEND	Approximate Yield per cent. per annum at Present Quotation.*	CLOSING QUOTATIONS
Kowloon Land & Bldg. Co., Ld.	1889	$300,000	6,000	$50	$30	none	$1089	31-12-06	$2½ for 1906	6½	$37½
Shanghai Land Investment Co., Ld.	1888	Tls. 3 900,000	52,000	Tls. 50	Tls. 50	Tls 869,493			Final div. of Tls. 3 and bonus of Tls. 1½ (old shares) and div. of 75 cents and bonus of 19 cts. (new shares) for 1906	7¼	Tls. 103 buyers / Tls. 101
Do. New Issue	1906		26 000	Tls. 50	Tls. 50	e Tls. 170,000	Tls. 61,978	31-12-06			
Tientsin Land Investment Co., Ld.	1902	Tls. 772,600	7,726	Tls. 100	Tls. 100	i Tls. 71,685	Tls. 1,973	31-12-06	Final of Tls. 5 making Tls. 8 for 1906	8	Tls. 100 buyers
West Point Bldg. Co., Ld.	1889	$625,000	12,500	$50	$50	none	$1,519	31-12-06	Final div. of $2.10 making $4.10 for 1906	8¼	$49 sellers
COTTON MILLS.											
EwoCotton Spinning & Weaving Co., Ld.	1895	Tls. 1,000,000	5) 20,000	Tls. 50	Tls. 50	Tls. 150,000	Tls. 64,986	31-10-06	Tls. 10 for year ended 31-10-06	16¼	Tls. 62 bnyers
Hongkong Cotton Spinning, Weaving & Dyeing Co., Ld.	1901	$1,250,000	125,000	$10	$10	Tls. 45,939					
International Cotton Manufacturing Co., Ld.	1895	Tls. 750,000	6) 10,000	Tls. 75	Tls. 75	e $110,000	$21,660	31-7-06	$1¼ for year ended 31-7-06	11	$11½
Laou-kung-mow Cotton Spinning & Weaving Co., Ld.	1895	Tls. 800,000	7) 8,000	Tls. 100	Tls. 100	Tls. 150,000	Tls. 36,211	30-9-06	Tls. 6 for year end. 30-9-06 (8%)	9¼	Tls. 65 sellers
Soy Chee Cotton Spinning Co., Ld.	1895	Tls. 1,000,000	2,000	Tls. 500	Tls. 500	none	Tls. 31,469	31-12-06	Tls. 8 for 1906	9¾	Tls. 82½
MISCELLANEOUS.						l Tls. 28,257	Tls. 50,663	31-12-06	Tls. 50 for 1906	13½	Tls. 370
Anglo German Brewing Co., Ld.	1904	$100,000	4,000	$100	$100	none	$906	31-12-06	$7 for 1906	8¾	$80
Bell's Asbestos Eastern Agency, Ld.	1895	£5,377.10s	11) 8,604	12-6	12-6	£814	£856	31-12-05	1s. 3d. for 1905	8¼	$7 sellers
Campbell, Moore & Co., Ld.	1886	$12,000	1,200	$10	$10	$9,000	$653	31-12-06	$3 for 1905	....	$20 sellers
China-Borneo Co., Ld.	1903	$720,000	8) 60,000	$12	$12	none	Nil.	31-12-06	$1 for 1904	....	$9½
China Flour Mill Co., Ld.	....	Tls. 200,000	4,000	Tls. 50	Tls. 50	Tls. 50,000	Tls. 889	31-12-05	Final of Tls. 5 making Tls. 10 for 1905	16½	Tls. 60 buyers
China Light & Power Co., Ld.	1901	$500,000	50,000	$10	$10	none	$25,000	28-2-07	60 cents for year ending 28-2-06	....	$7 sales
China Provident Loan & Mortgage Co., Ld.	1898	a $1,000,000	100,000	$10	$10	$115,000	$855	31-12-06	80 cents for 1906	9	$9 sales
Dairy Farm Co., Ld.	1896	$187,500	25,000	$7½	$6	$50,000	$2,555	31-7-06	$1.30 for year ending 31-7-06	8½	$15½ buyers
Green Island Cement Co., Ld.	1889	$2,000,000	200,000	$10	$10	$411,000	$10,804	31-12-06	Final of $1¼ making $2 for year ending 31-12-06	10½	$19 sellers
Hall & Holtz, Ld.	....	$420,000	21,000	$20	$20	p $500,000	$20,893	28-2-06	$2½ for year ending 28-2-06	10½	$23 buyers
Hongkong Electric Co., Ld.	1889	$600,000	60,000	$10	$10	$198,000	$2,568	28-2-06	$1.00 for 10 months ending 65 cts. 28-2-06	7¾	$16 buyers
Peak Tramways Co., Ld.	1907	$750,000	15) 75,000	$10	$10	none	none	.....	First year	....	$12 sales
Hongkong Ice Co., Ld.	1881	$125,000	5,000	$25	$25	k $105,000	$4,361	31-12-06	Final of $18 making $22 for the year ending 31-12-06	9¼	$240
Hongkong Rope Manufacturing Co., Ld.	1883	$500,000	50,000	$10	$10	$65,000	$4,212	31-12-06	$2 for year ending 31-12-06	10	$20 buyers
Hongkong Steam Waterboat Co., Ld.	1900	$150,000	15,000	$10	$10	$2,500	$88	30-9-06	Final of 50 cents making $1 for year ended 30-9-05	....	$9½ sales & b.
Maatschappij tot Mijn-, Bosch- en Landbouwexploitatie in Langkat	1902	Gs. 2,500,000	25,000	Glds. 100	Glds. 100	Tls. 547,500 / i Tls. 27,603	Tls. 10,374	31-10-05	First interim div. of Tls. 7½	10¾	Tls. 280 buyers
Mondon (E. L.), Ld.	1902	Tls. 350,000	7,000	Tls. 50	Tls. 50	none	Dr. Tls. 81,060	31-12-05	Tls. 5 for 1902	....	Tls. 10 sellers
Philippine Co., Ld.	1904	$675,000	67,500	$10	$10	none	Dr. P. 34,324	31-12-05	None	....	$5 buyers
Shanghai Gas Co., Ld.	1903	Tls. 800,000	24,000	Tls. 50	Tls. 50	d Tls. 100,000	Tls. 7,990	31-12-06	Final of Tls. 3½ and bonus of Tls. 1½ for year ending 31-12-06	4½	Tls. 110 sales
Shanghai Horse Bazaar Co., Ld.	1904	Tls. 270,000	5,400	Tls. 50	Tls. 50	Tls. 45,000	Tls. 9,751	31-12 04	Tls. 6 for 1904	....	Tls. 38
Shanghai Pulp & Paper Co., Ld.	....	Tls. 450,000	4,500	Tls. 100	Tls. 100	Tls. 45,000 / e Tls. 8,000	Tls. 3,354	31-12-06	Final of Tls. 5 making Tls. 10 for 1906	9	Tls. 110 sellers
Shanghai-Sumatra Tobacco Co. Ld.	1902	Tls. 600,000	9) 30,000	Tls. 20	Tls. 20	Tls. 24,820 / w Tls. 50,000	Tls. 7,843	31-10-06	Final of Tls. 6 making Tls. 10 for 1903	8¾	Tls. 115 sales
Shanghai Waterworks Co., Ld.	1881	£288,000	8,175	£20	£20	Tls. 190,000	Tls. 85,592	31-12-05	Int. div. of 15/- for half-year 06	....	Tls. 340 sales
South China Morning Post, Ld.	1903	$150,000	7,200	£20	£15				Int. div. 5/- for half-year 1906	....	Tls. 285
Steam Laundry Co., Ld.	1902	$100,000	6,000	$25	$25	none	Dr. $41,934	28-2-06	None	....	$25
Tientsin Waterworks Co., Ld.	1901	Tls. 200,000	20,000	$5	$5	none	214	31-5-06	30 cents (old) and 15 cents (new) for year ended 31-5-06	4¼	$7 sales
Union Waterboat Co., Ltd.	1905	$500.000	16) 50,000	Tls. 100	Tls. 100	Tls. 15,259 / e Tls. 4,000	Tls. 1,012	30-4-05	Interim of Tls. 4 for year 1905-6	7¾	Tls. 100 buyers
United Asbestos Oriental Agency, Ld.	1896	$100,000	9,900	$10	$4	none	$349	31-12-06	First year	....	$11½ buyers
Do (Founders')			100	$10	$10	$25,000	$752	31-5-06	70. cts / $9.90 for year ended 31-5-06	8¾ / 6½	$10 / $150
Watson (A. S.) & Co., Ld.	1886	$900,000	90,000	$10	$10	$300,000 / $25,000	$7,734	31-12-05	Interim of 40 cts. % 1906	8¼	$12¼ sellers
William Powell, Ld.	1901	$150,000	15,000	$10	$10	e $4,500	$182	30-6-06	Final of 30 cents making 80 cents for year ending June 30th 1906	10	$8
Weeks & Co., Ld.	....	$381,360	20,000	$20	$20	Tls. 15,000	$3,536	28-2-06	Interim of 80 cts. % 1906	10	$21 buyers

LOANS AND DEBENTURES.	AGENTS FOR THE LOAN.	AMOUNT OF LOAN.	PAR VALUE	OUTSTANDING BONDS.	WHEN PAYABLE.	CLOSING QUOTATIONS.
China Government, 7 per cent. Silver Loan 1886 E	Hongkong & Shanghai Banking Corporation.	Tls. 767,200	Tls. 250	1914	Mar. 31st and Sept. 30th each year until Mar. 31st, 1917	par.
Hongkong Hotel Company, Ltd., 6 per cent. Mortgage Debentures of 1899 ‡		$500,000	$500	§ all	Half yearly, June 30th and December 31st	par.
Shanghai & Hongkew Wharf Company, Ltd., 6 per cent. Debentures of 1902		Tls. 543,900	Tls. 100	.....	Half yearly, June 30th and December 31st	Tls. 98
Astor House Hotel Company, Ltd., 8 per cent. Debentures of 1903		Tls. 500,000	Tls. 100	.....	Half yearly, January 1st and July 1st	Tls. 101
Chinese Engineering & Mining Co., Ltd., 6 per cent. Debentures of 1903 †	.....	£500,000	¶	£431.960	Half yearly, June 30th and December 31st	par.
International Cotton Manufacturing Co., Ltd. 7% Debentures of 1901	Russo Chinese Bank	Tls. 500,000	Tls. 100	||	Half yearly, March 31st and Sept. 30th	Tls. 97½.

Plus accrued interest

a Authorized capital $2,000,000.
b Building Reserve Account.
c Capital Reserve Fund.
d Depreciation Fund.
e Equalization of Dividend Fund.
f Exchange and Investment Fluctuation Account.
g Gold Reserve Fund
h Exchange Reserve Account.
i Insurance Fund.
j Reinsurance Fund.
k Contingencies Account.
l Legal Reserve Fund.
m Authorized Capital
n Sinking Fund.
o Raw Sugar Reserve Account.
p Premium on New Issue.
q Boiler Repairs and Renewals Account
r Repairs and Renewals Account.
s Silver Reserve Fund.
t Depreciation and Repairs Account
u Underwriting Suspense Account.
v Special account
w Special Works Fund.
x Extra Reserve Fund.
y 72,560 owned by the Company.
z 7,200 shares unissued.
1 5,725 shares unissued.
2 First issue of 60,000 of which 10,411 unalloted.
3 5,000 shares unissued.
4 4,480 shares unissued.
5 5,900 shares unalloted.
6 1,616 shares unalloted.
7 842 shares unissued.
8 14,000 shares unissued.
9 17,000 shares unissued.
10 0,453 shares actually issued.
11 7,688 shares actually issued.
12 4,200 shares unissued.
13 500 shares unissued.
14 198 shares unissued.
15 50,000 shares unissued.
* Based on last year's dividend.
** Based on present dividend.
|| Only Tls. 134,000 taken up.
§ 216 held by the Company.
¶ In certificates of £20 and £100.
‡ Redeemable in 10 years, or at option of Company, the Company giving 6 months notice.
† Redeemable at par at rate of £10,000 per annum from 31st December 1903 to 31st December 1952.
Dr Deficit.

SINGAPORE SHARE QUOTATIONS

(COURTESY MESSRS. FRASER & CO., BROKERS, SINGAPORE, MAY, 1907)

Date of Formation	Capital	Capital paid up	No. of Shares Issued	Issue Value	Paid up	Reserve	Last Dividend	Name	Buyers	Sellers	Closing Quotations
								MINING			
1903	$300,000	300,000	30,000	10	10	.....	.....	Belat Tin Mining Co., Ltd	19.75	20.00	$20.00
1907	$300,000	225,000	22,500*g**	10	10	.....	.....	Bruang Ltd	....	....	10.50
1903	£400,00	350,000	350,000*a*	1	1	.....	.....	Duff Development Co., Ltd	2.75	3.00	3.00
1901	$600,00	600,000	60,000	10	10	.....	10% interim for 1906	Bruseh Hydraulic Tin Mining Co., Ltd	....	....	19.00
1905	£30,000	30,000	30,000	1	1	.....	3*f*- during 1906	Jeher Hydraulic Tin Mine, Ltd	....	17.50	17.50
1907	$400,000	$375,000	37,500*b*	10	10	.....	.....	Kanaboi, Ltd	....	10.50	10.50
1901	£60,000	60,000	60,000	£1	£1	.....	-*f*6 interim for 1907	Kinta Tin Mines, Ltd	....	11.25	11.25
1906	£100,000	£90,000	90,000*c*	£1	£1	.....	.....	Kledang Tin Mining Co., Ltd	....	14.50	14.50
1905	$150,000	99,000	9,900*d*	10	10	6,000	55% for 1906	Kuantan Tin Mining Co., Ltd	....	21.00	21.00
1906	£120,000	£120,000	120,000	1	1	.....	.....	Lahat Mines Ltd	....	11.50	11.50
1906	$450,000	$225,000	45,000	10	5	.....	.....	Malacca Tin Dredging Co., Ltd	....	4.00	4.00
1906	£250,000	£145,000	600,000	5*f*-	2*f*6	.....	.....	Pahang Consolidated Co., Ltd	....	17*f*6	17*f*6 prem.
			100,000	£1	£1	.....	.....	" " " 7% *Pref*	....	....	nominal.
1904	£120,000	98,000	98,000*e*	1	1	.....	2*f*6 interim for 1907	Pusing Lama Tin Mines, Ltd	....	24.00	24.00
1905	£27,000	21,750	21,750*f*	1	1	.....	.....	Rambutan, Ltd	....	24.25	24.25
1892	£200,000	191,250	50,000	1	1	4,873	1*f*- paid January 1901	Raub Aust Gold Ming Co., Ltd, *Fully. pd.*	....	6.00	6.00
			150,000	1	18*f*10	.....	1*f*- " " "	*Contrib*	....	6.00	6.00
1905	£40,000	35,200	35,200*g*	1	1	.....	.....	Redhills Tin Mining Co., Ltd	....	24.50	24.50
1898	*f*.2,000,000	1,800,000	18,000	100	100	.....	52½% for yr. end. 31-12-06	Redjang Lebong Mining Co	....	....	625.00
1900	$110,000	110,000	22,000	5	5	.....	5% interim paid Sept. 1906	Royal Johore Tin Mining Co., Ltd	....	3.50	3.50
1906	$80,000	80,000	8,000	10	10	.....	.....	Serem. Sungei Rayah Tin Ming. Co., Ld	....	3.50	3.50
1906	$850,000	850,000	85,000	10	10	.....	12½% interim for 1907	Serendah Hydrlc Tin Ming. Co., Ltd	....	18.25	18.25
1899	$230,000	230,000	23,000	10	10	.....	5% for ½ year ending 30-6-06	Sipiau Tin Co., Ltd	....	8.00	8.00
1902	£160,000	149,185	149,185*h*	1	1	.....	2*f*- interim for 1907	Tronoh Mines, Ltd	....	23.00	23.00
								RUBBER			
			46,500*i*	1	1	.....	.....	Anglo-Malay Rub. Co., Ltd. *Fully paid*	....	....	£3 12*s*. 6*d*.
1905	£150,000	104,937-10	93 500	1	12*f*6	.....	.....	" " " *Contributory*	....	....	£3 2*s*. 6*d*.
			1,700*j*	10	10	.....	.....	Balgownie Rub. Estate Ltd. *Fully paid*	....	....	$19.00
1905	$200,000	87,400	8,800	10	8	.....	.....	" " " *Contributory*	....	....	$17.00
			7,000*k*	1	1	.....	.....	Batu Caves Rub. Co., Ltd. *Fully paid*	....	....	£2 2*s*. 6*d*.
1904	£30,000	11,125	11,000	1	7/6	.....	.....	" " " *Contributory*	....	....	£1 12*s*. 6*d*.
1905	$700,000	610,000	61,000*l*	10	10	.....	.....	Batu Unjor Rubber Co., Ltd	....	20.50	$20.50
1903	£70,000	61,000	61,000*m*	1	1	.....	5% interim for 1906	Bukit Rajah Rubber Co., Ltd	....	....	£4 15*s*. 0*d*.
1906	$150,000	125,000	12,500*n*	10	10	.....	.....	Castlewood Rubber Co., Ltd	....	9.00	$9.00
1904	£12,000	10,500	6,000	1	1	.....	5% to 31-3-06	Cicely Rubber Estates Co., Ltd	....	....	£2 16*s*. 0*d*.
			6,000	1	15*f*-	.....	10% to 31-3-06	" " " " 5% *Pref*	....	....	£2 16*s*. 0*d*.
1905	£75,000	55,000	55,000*o*	1	1	.....	.....	Consolidated Malay Rub. Estates, Ltd	....	....	£2 7*s*. 6*d*.
			181,454*p*	1	1	.....	.....	Highlands & Lowds. Para Rub. Co., Ltd.			
1906	£310,000	227,783-15						*Fully paid*	....	....	£2 2*s*. 0*d*.
			123,546	1	7/6	.....	.....	" " " " *Contributory*	....	....	£1 7*s*. 6*d*.
1906	£180,000	£180 000	18,000	1	1	.....	.....	Kuala Lumpur Rubber Co., Ltd	....	....	.....
			80	*f*.250	250	.....	.....	Langen Rub. and Cocoanut Co., Ltd.	....	....	*f*.250.
1906	*f*175,000	*f*.117,500	460	*f*.250	125	.....	.....	" " " " " "	....	....	*f*.125.
			160	*f*.250	250	.....	.....	" " " " " "	....	....	*f*.250.
1906	$250,000	225,000	22,500*q*	10	10	.....	.....	Ledbury Rubber Co., Ltd	....	11.50	$11.50
			10,000	1	1	.....	.....	Linggi Plantations Ltd., 7% *Pref*	....	....	
			10,000	1	1	.....	5% for 1906	" " " *Ordinary*	....	....	£3 10*s*. 0*d*.
1895	£50,000	32,332 10	10,000	1	1	.....	.....	.....	....	....	.....
			10,000	1	5*f*-	.....	.....	.....	....	....	£2 10*s*. 0*d*.
			115,000	1	1	.....	3¼% interim for 1906	Malacca Rubber Plantations 7½% *Pref*	....	....	£1 3*s*. 0*d*,
1906	£300,000	260,625	140,000	1	1	.....	.....	" " Ordinary *Fully paid*	....	18*f*-	18*f*-
			45,000	1	2*f*6	.....	.....	" " *Contributory*	....	....	nominal.
1903	£30,000	20,000	20,000*r*	1	1	.....	10% interim for 1906.	Pataling Rubber Estates Syud. Ltd	....	....	£6 1*s*. 3*d*.
1904	$200,000	135,000	1,350*s*	100	100	.....	.....	Ribu Planting Co., Ltd	....	....	$200.00
1904	$100,000	85,000	850*t*	100	100	.....	20% for year ending 31-1-07	Sandycroft Rubber Co., Ltd	....	305.00	$305.00
			26,300	1	1	.....	15% for ½ year end. 30-6-06	Selangor Rubber Co., Ltd	....	....	£7 10*s*. 0*d*.
1898	£30,000	26,762,10	3,700	1	2*f*6	.....	.....	" "	....	....	nominal.
			1,300*u*	100	100	.....	.....	Sing. & Johore Rub. Co., Ltd. *Fully paid*	180.00	....	$180.00
1903	$250,000	148,000	1,200	100	40	.....	.....	" " " *Contributory*	110.00	....	$110.00
1905	$100,000	83,550	8,335*v*	10	10	.....	.....	Sione Rubber Co., Ltd	....	14.50	$14.50
			6 920*w*	1	1	.....	.....	Sungei Way (Selangor) Rub. Co. Ltd.	....	....	£2 5*s*. 3*d*.
1904	£50,000	24,420	35,000	1	10*f*-	.....	.....	" " " *Contributory*	....	1.15.3	£ 1 15*s*. 3*d*.
1904	£60,000	50,000	50,000*x*	1	1	.....	.....	Vallambrosa Rubber Co., Ltd	....	....	£6 0*s*. 0*d*.
								CENTRAL			
1894	£5,377,10.0	£4,648.15.	7,438	12*f*6	12*f*6	£814,11.9	10% dividend for 1905	Bells Asbestos Eastern Agency, Ltd	....	....	7.00
1898	$225,000	225,000	4,500	50	50	112,500	15%&2½%bon. for yr. end. 31-12-06.	Fraser & Neave, Ltd	135.00	136.00	135.00
						10,000,000*b**	£1 15*s*. & bonus of £1 at ex. 2*s*.				
1865	$10,000,000	10,000,000	80,000	125	125	11,000,000*c**	3½*d*. making $40.80 for 1906	Hongkong & Shanghai Bankg Corptn	....	....	855.00
						250,000*d**					
			18,000	100	....	40,000	7½% for year ending 31-10-06	Howarth Erskine, Ltd	....	175.00	175.00
1905	$2,400,000	2,400,000	6,000	100	....	.....	7% for year ending 31-10-06	" " 7% *Pref*	....	....	120.00
			6,000	100	100	600,000	10% for year ending 31-12-06	Katz Brothers, Ltd. *Deferred*	....	....	135.00
1896	$1,000,000	1,000,000	4,000	100	100	.....	8% " " " "	" " 8% *Cum. Pref*	....	....	nominal.
1901	$34,000	34,000	3,400	10	10	.....	20% for year ending 31-10-06	Maynard & Co., Ltd	....	....	21.00
			6,000	100	100	150,000	5% for year 1906	Riley, Hargreaves & Co., Ltd	....	105.00	105.00
1899	$875,000	875,000	2,750	100	100	.....	7% for year 1906	" " " " 7% *Pref*	....	....	110.00
1903	$600,000	240,000	24,000*y*	10	10	.....	.....	Singapore Cold Storage Co., Ltd	....	8.75	8.75
1891	$30,000	30,000	600	50	50	20,000	10% for year ending 31-7-06	Singapore Dispensary Ltd	....	55.00	55.00
1884	$200,000	200,000	2,000	100	100	35,000	20% for year ending 31-12-05	Straits Ice Co., Ltd	....	165.00	165.00
1890	$500,000	500,000	5,000	100	100	400,000	10% for 1906	Straits Steam Ship Co., Ltd	165.00	....	165.00
						241,075*e**					
			2,535*z*	10	8	.....	.....	Straits Tobacco Factory, Ltd	....	....	4.00
1904	$40,000	$30,280	1,000	10	10	.....	.....	" " " "	....	....	nominal.
						1,000,000					
1887	$3,000,000	2,500,000	250,000*a**	10	10	1,087 084*f**	10%&5% bon. ½ yr. end. 30-9-06	Straits Trading Co., Ltd	....	65.00	65.00
1864	$3,700,000	3,700,000	37,000	100	100	1,950,000	$6 for half year ending 31-12-06	Tanjong Pagar Dock Board	740.00	....	740.00

					DEBENTURES
Howarth Erskine, Ltd. 6%	600,000	....	....	3% prem.
Singapore Municipal 6%	400,000	....	....	2% prem.
" " 4%	1,878,000	....	....	2% prem.
" " 5%	602,900	....	....	2% dis. nom.
Riley, Hargreaves & Co., Ld. 6%	225,000	....	....	3% prem.
Tanjong Pagar. Dock Board 6%	250,000	....	....	3% prem.
" " " 5%	1,050,000	....	....	par.

a 50,000 unissued
b 2,500 "
c 10,000 "
d 5,100 "
e 22,000 "
f 5,250 "
g 4,800 "
h 10,815 "
i 10,000 "
j 9,500 "
k 12,000 "
l 9,000 unissued.
m 9,000 "
n 2,500 "
o 20,000 "
p 5,000 "
q 2,500 "
r 10,000 "
s 650 " Mort. £5,000
t 150 "
u 300 "
v 1,645 "
w 8,080 unissued.
x 10,000 "
y 36,000 "
z 465 "
*a** 50,000 "
*b** Special Gold Reserve Fund
*c** Silver Reserve Fund.
*d** Insurance Fund.
*e** Sundry Reserves.
*f** Sundry Reserves.
*g** 7,500 unissued.

BIDS FOR STEEL LAUNCHES AND LORCHAS

The chief quartermaster of the Division of the Philippines has advertised for bids for the construction of five steel launches, eight steel lorchas, one steel hull and eight boilers, to be opened June 15th. Specifications are on file with the American consuls in Hongkong, Singapore and Shanghai. The advertisement appears in another column of this issue of the FAR EASTERN REVIEW.

YUNNAN RAILWAY.—47,000 workmen are on the work of the Yunnan-Mentze Railway day and night, so as to get it finished as soon as possible.

SHANSI MINING DISPUTE.—Gentry of Shansi Province have already collected 300,000 taels with which they propose to organize a Mining Company, but the British Minister has protested, declaring that it is a menace to the Concession procured by the Peking-Syndicate.

YOKOHAMA SHARE QUOTATIONS

COURTESY A. C. HUTTON POTTS, SHARE AND GENERAL BROKER, YOKOHAMA, MAY 1907

STOCKS	CAPITAL.	NO. OF SHARES	ISSUE VALUE	AMOUNT PAID UP	RESERVED FUND	AT WORKING ACCOUNT OR CARRIED FORWARD	DATE	LAST DIVIDEND	FOR TERM	CLOSING QUOTATION
Brett & Co., Ltd.	-Y- 28,000	2800	10	10			31-12-06	8%	for 1 year	9 Sellers.
Club Hotel, Ltd.	185,000	1850	100	100			31-3-06	5%	for 1 year	90 Sellers.
Grand Hotel, Ltd.	500,000	5000	100	100		-Y- 13,990.77	31-12-06	6%	for ½ year	160 Sellers.
Helm Bros., Ltd.	186,000	3720	50	50	22.500	-Y- 2,916.83	31-12-06	20%	for 1 year	90 Yellers.
Langfeldt & Co., Ltd.	150,000	1500	100	100		Dr. 20.304.15	31-12-06		for ½ year	45 Buyers.
C. Nickel & Co., Ltd. †	500,000	20000	25	25		1,470.97	31-10-06	16%	for 1 year	41 Sellers.
Yokohama Engine and Iron Works *	500,000	10000	50	50	50,000	-Y- 16,282.42	31-5-06	35%	for 1 year	92½ Sales.
Oriental Hotel, Ltd., Ordinary	250,000	3000	50	50	62,285.42		31-8-06	15%	for 1 year	75 Nominal.
Oriental Hotel, Ltd., Preference		2000	50	50				8%	or 1 year	64 Sales.
The Union Estate and Investment Co., Ltd. ‡	1,000,000	10000	100	100			Fisrt Year.			105 Sales.

† 285,000 unissued.

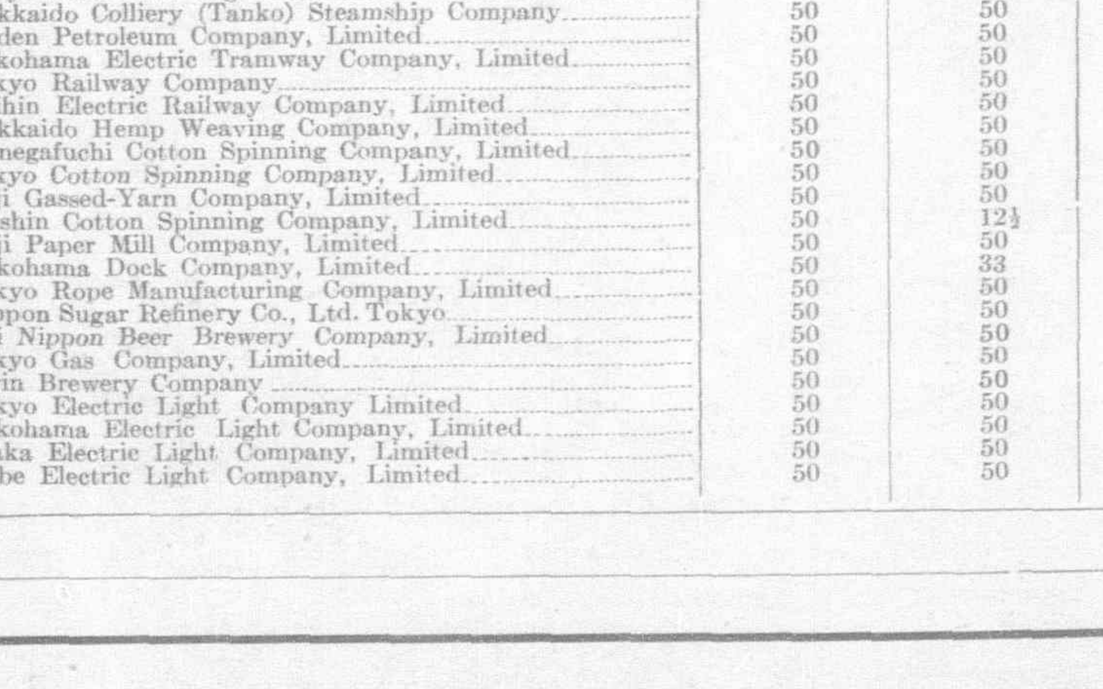
*-Y- 390,000 issued.

‡ 475,000 unissued.

110,000 unissued.

DEBENTURE LOANS	AMOUNT OF LOAN.	FACE VALUE OF DEBENTURES.	RATE OF INTEREST.	INTEREST PAYABLE.	CLOSING QUOTATION.
Brett & Company, Limited	11,500.00	100.00	7%	1 June and 1 Dec.	85 Sales.
Yokohama United Club	250,000.00	100.00	7%	30 June and 31 Dec.	106 Nominal.
C Nickel & Company, Limited	50,000.00	100.00	8%	1 May and 1 Nov.	110 Sellers.
Oriental Hotel, Limited	250,000.00	100.00	8%	1 April and 1 Oct.	110 Sellers.
Union Estate and Investment Co., Limited	250,000.00	100.00	6%	30 June and 31 Dec.	100 Sellers.

JAPANESE STOCKS.	FACE VALUE.	AMOUNT PAID UP.	DIVIDENN PER ANNUM.	DIVIDEND PAYABLE.	CLOSING QUOTATION.
Exchequer Bonds 1st issue	-Y-100	-Y-100	5%	June and Dec.	97.00
Exchequer Bonds 2nd issue	100	100	5%	March and Sept.	,, 93.00
Exchequer Bonds 3rd issue	100	100	5%	March and Sept.	,, 93.00
Consolidated Bonds (Seiri)	100	100	5%	June and Dec.	,, 89.40
War Bonds (Gunji)	100	100	5%	June and Dec.	,, 89.40
Imperial 5% Bonds (Goburi)	100	100	5%	March and Sept.	,, 89.50
Imperial Government 5% Bonds (issued 1906)	100	100	5%	June and Dec.	,, 90.00
Kobe Water Works Bonds	100	100	6%	June and Dec.	,, 100.00
Osaka Harbour Bonds	100	100	6%	June and Dec.	,, 100.00
Osaka City Public Loan Bonds	100	100	6%	June and Dec.	,, 100.00
Yokohama Water Works Bonds	100	100	6%	June and Dec.	,, 101.00
Yokohama City Public Loan Bonds	100	100	6%	March and Sept.	,, 100.00
Sanyo Railway Company Debentures (2nd issue)	100	100	6%	April and Oct.	,, 97.50
Tokyo Stock Exchange	50	50	50%	May and Nov.	,, 308.00
Hokkaido Colliery (Tanko) Steamship Company	50	50	15%	June and Dec.	,, 109.00
Hoden Petroleum Company, Limited	50	50	30%	March and Sept.	,, 190.00
Yokohama Electric Tramway Company, Limited	50	50	6%	June and Dec.	,, 54.80
Tokyo Railway Company	50	50		May and Nov.	,, 86.70
Keihin Electric Railway Company, Limited	50	50	13%	May and Nov.	,, 105.00
Hokkaido Hemp Weaving Company, Limited	50	50	13%	Jan. and July.	,, 54.90
Kanegafuchi Cotton Spinning Company, Limited	50	50	20%	June and Dec.	,, 112.00
Tokyo Cotton Spinning Company, Limited	50	50	20%	June and Dec.	,, 73.80
Fuji Gassed-Yarn Company, Limited	50	50	25%	June and Dec.	,, 99.50
Nisshin Cotton Spinning Company, Limited	50	12½	—	——	,, 9.65
Fuji Paper Mill Company, Limited	50	50	10%	May and Nov.	,, 57.00
Yokohama Dock Company, Limited	50	33	15%	May and Nov.	,, 72.00
Tokyo Rope Manufacturing Company, Limited	50	50	20%	May and Nov.	,, 120.00
Nippon Sugar Refinery Co., Ltd. Tokyo	50	50	20%	May and Nov.	,, 85.00
Dai Nippon Beer Brewery Company, Limited	50	50	15%	June and Dec.	,, 106.05
Tokyo Gas Company, Limited	50	50	15%	June and Dec.	,, 115.25
Kirin Brewery Company	50	50			,, 110.00
Tokyo Electric Light Company Limited	50	50	12%	May and Nov.	,, 73.30
Yokohama Electric Light Company, Limited	50	50	15%	June and Dec.	,, 115.00
Osaka Electric Light Company, Limited	50	50	13½%	June and Dec.	,, 128.00
Kobe Electric Light Company, Limited	50	50	10%	June and Dec.	,, 100.00



A. K. LAMOTTE

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SCIENTIFIC AND ENGINEERING BOOKS
WE CARRY ALL THE LATEST
LEADING MAGAZINES, SCIENTIFIC
AND COMMERCIAL PAPERS

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"TABACALERA"

HEAD OFFICE:
BARCELONA

COMPANIA GENERAL DE TABACOS DE FILIPINAS

Established in 1882. **Capital: £ 3,000,000**

Shipping Department, 63 Escolta.

—

Manila General Office, Calzada Marques de Comillas.

—

Retail Store, 63 Escolta.



BRANCHES AND AGENCIES

—

in the principal cities of the world and towns of the Philippines

—

Proprietors of the celebrated factories

"La Flor de la Isabela"

High grade cigars manufactured with the most selected leaf grown in the estates of the Company.

SPECIAL BRANDS:

Pig's tails, Vegueros Especiales, Regalia A. Lopez, Regalia G. Pereire, Favoritos A. Lopez, Favoritos A. Correa, Perfectos Especiales, Exquisitos, Reina Victoria, etc.

Excellent common brands.

"La Clementina"

Alcohol Manufactures—Gin—Distilled Spirits

GENERAL IMPORTERS AND EXPORTERS

A very extensive coastwise service with up-to-date steamers

AGENTS FOR

COMPANIA TRASATLANTICA SS. CO.

(Spanish Royal Mail)

Direct service between Philippines, Spain, and England. Through tickets to and from New York issued. Lines of Steamers to all ports of the World.

FAR EASTERN BRANCH AGENCIES:

YOKOHAMA	240 Settlement.
SHANGHAI	J. DELBOURGO, 29 Rue du Consulat.
HONGKONG	A. R. MARTY, 2 Pedder-st.
SINGAPORE	Max. STOLZEL, 4 Battery-rd.

Libby's

Natural Flavour

Food Products



Libby's (Natural Flavour) Food Products

Among the many Libby delicacies are Potted and Deviled Ham and Chicken, Dried Beef, Ham Loaf, Melrose Paté, Vienna Sausage, Sliced Bacon, Brisket Beef, Lunch Tongue, Ox Tongues, Jellied Hocks, Veal Loaf and Cooked Corned Beef Hash—wholesome foods that are as dainty as they are good—as substantial as they are appetizing.

Ask your grocer for them.

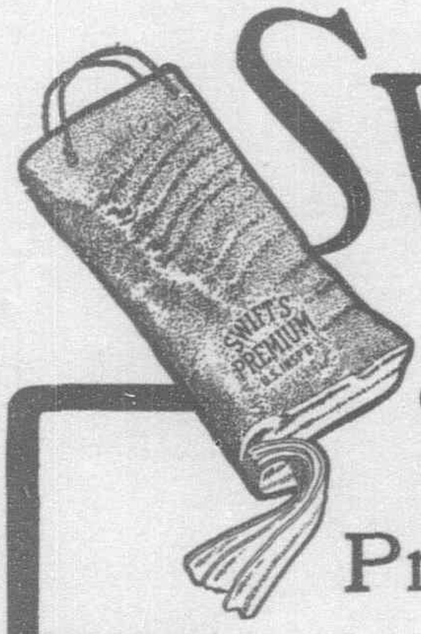
The Booklet, "How to Make Good Things to Eat," sent free. Address

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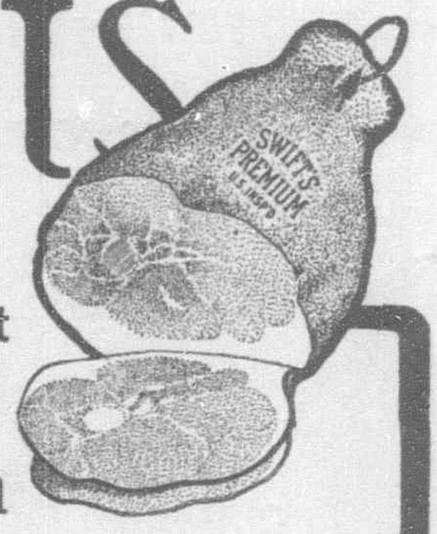
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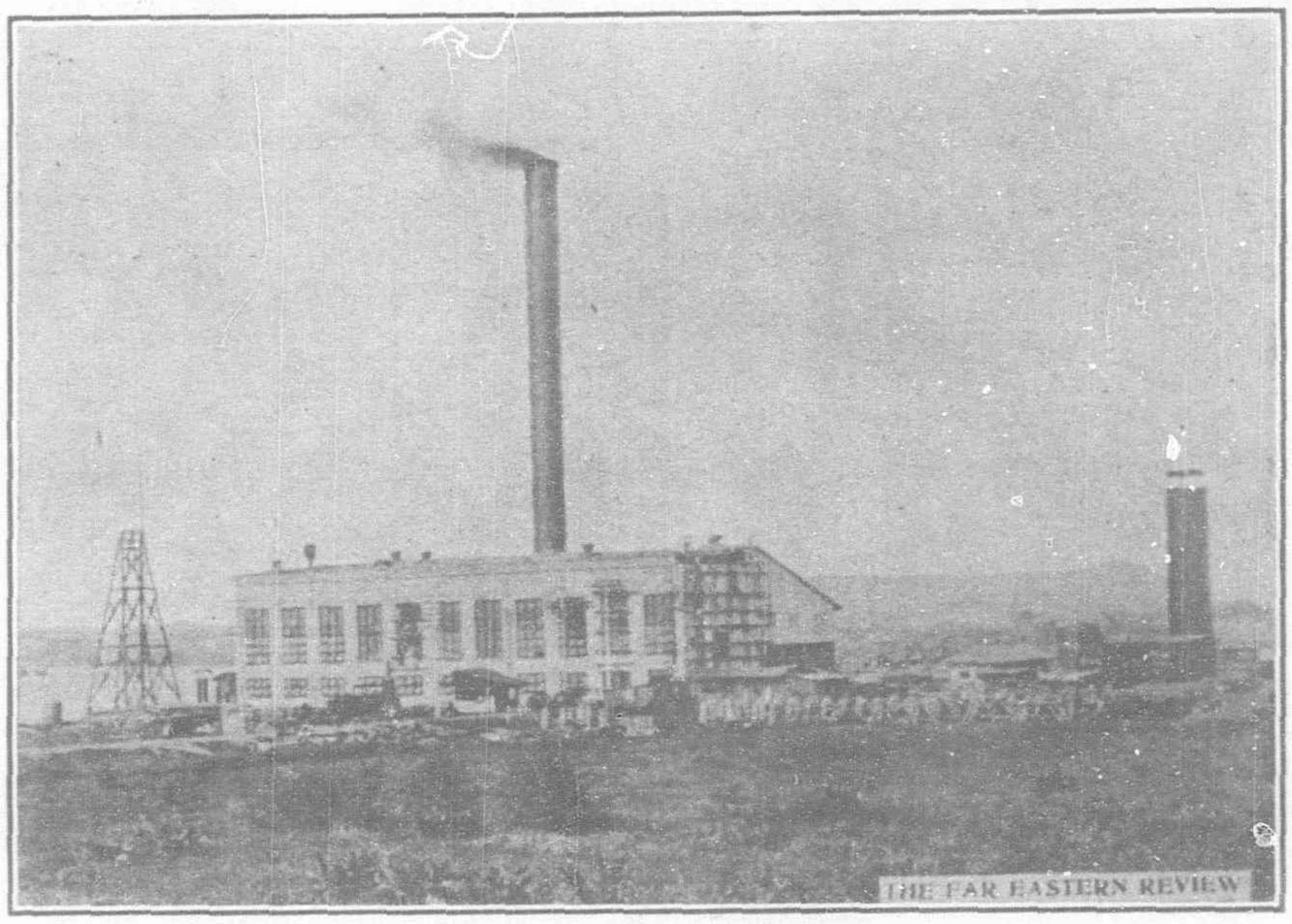
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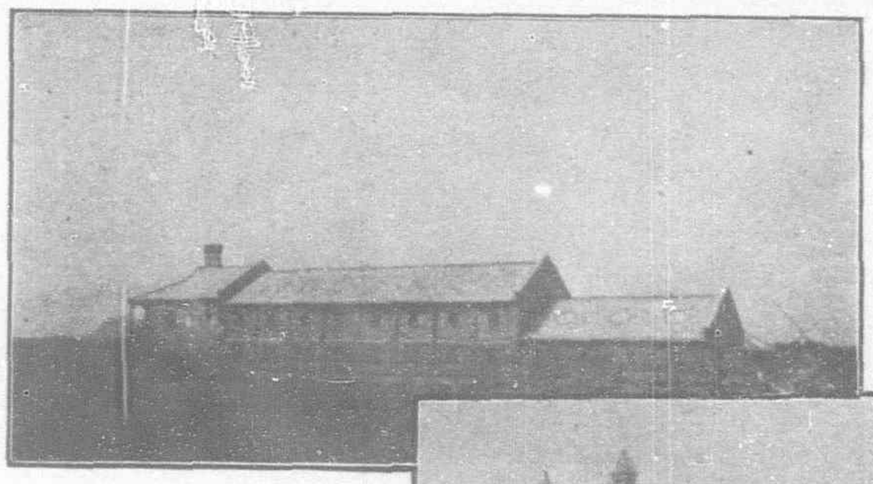
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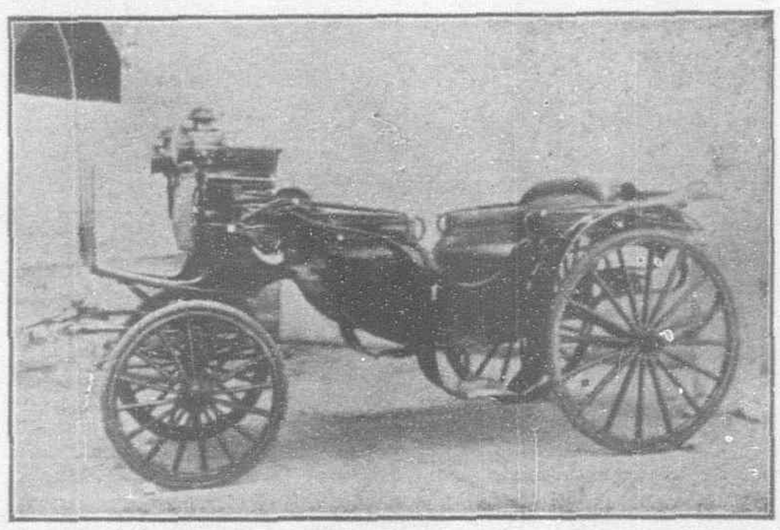
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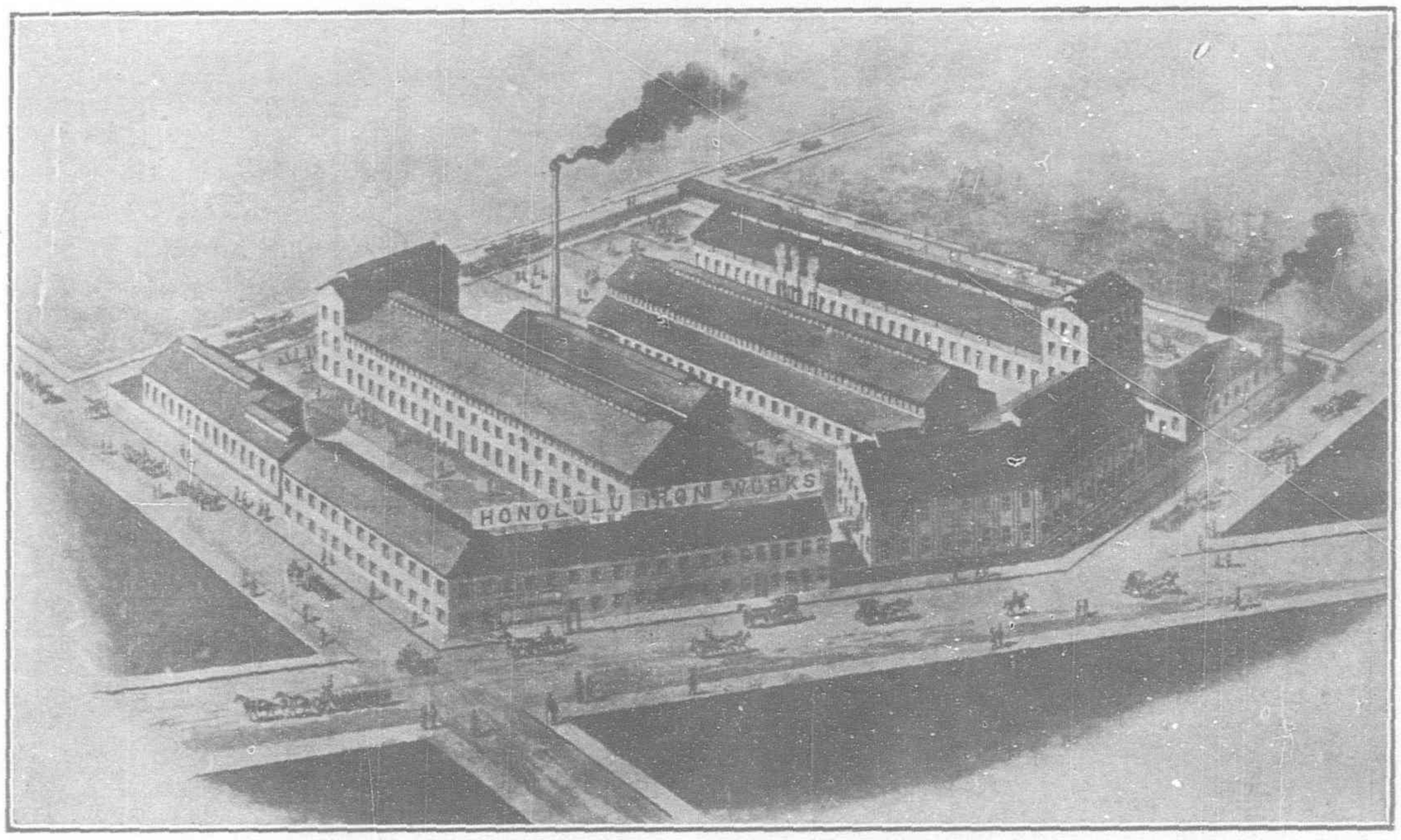
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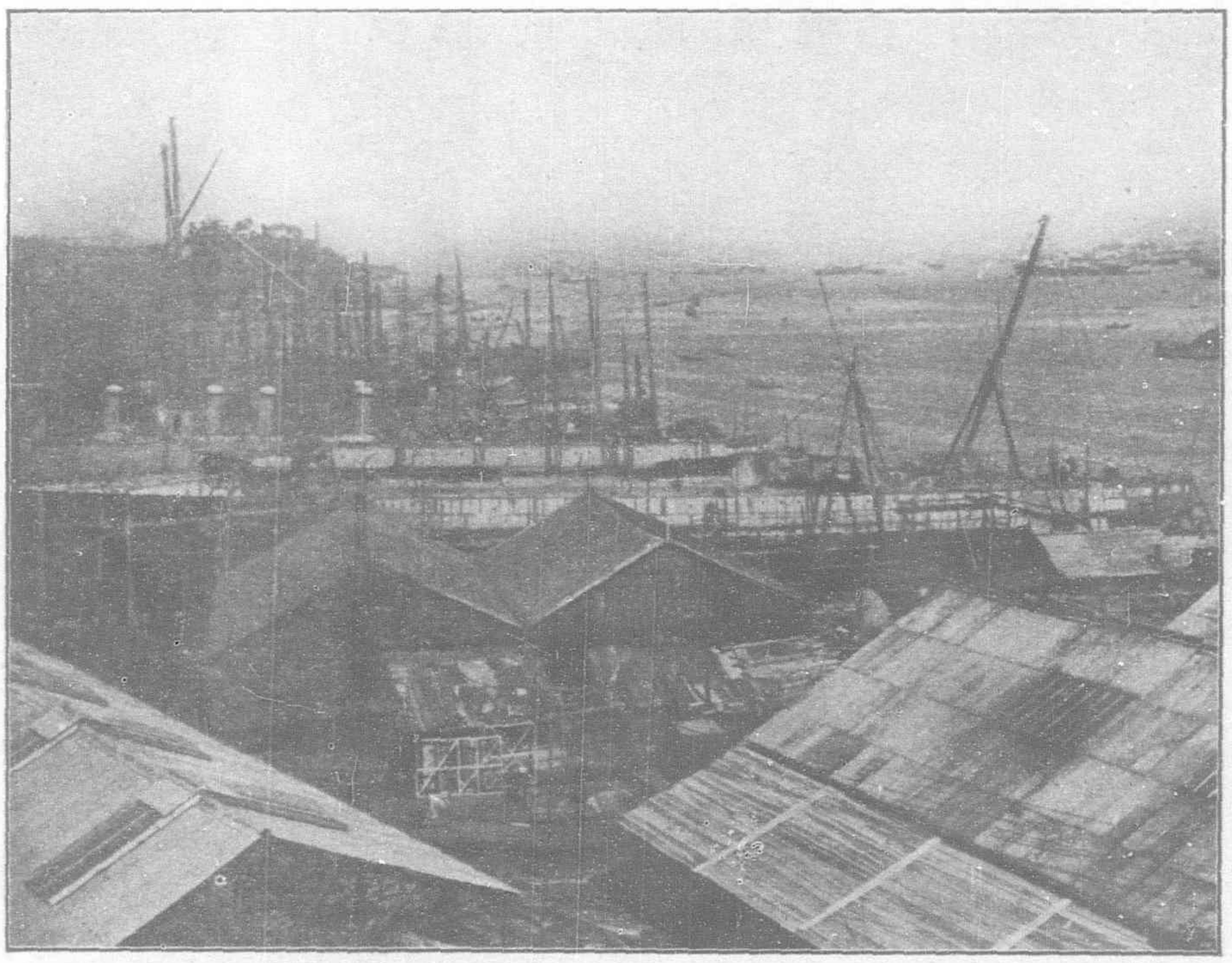


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WATER ON BLOCKS AT SPRING TIDE	26½	,,

DOCK NO. 2.

EXTREME LENGTH	371	FT.
LENGTH ON BLOCKS	360	,,
WIDTH OF ENTRANCE ON TOP	66	,,
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DOCK NO. 3.

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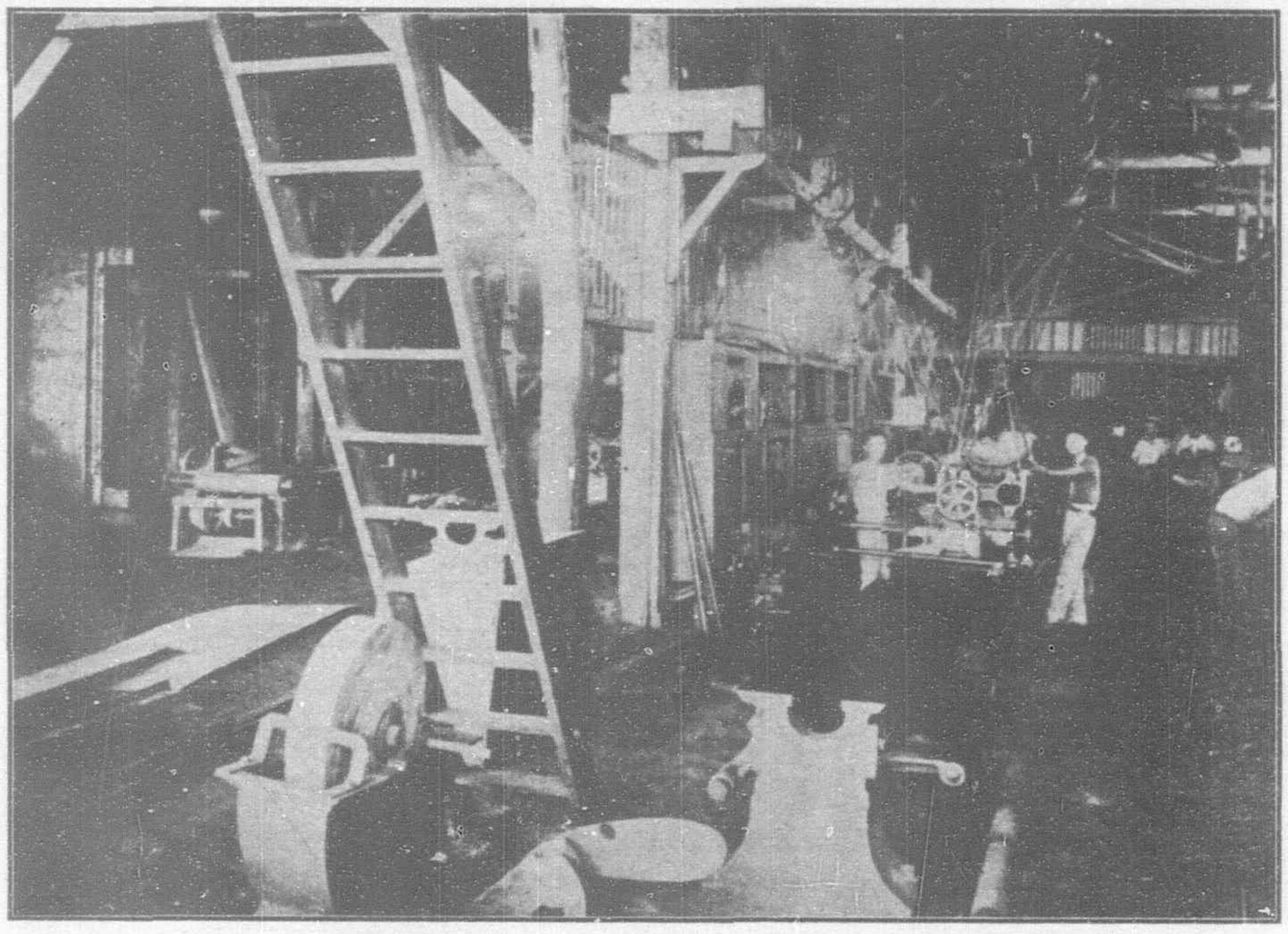
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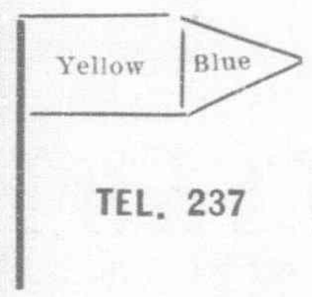
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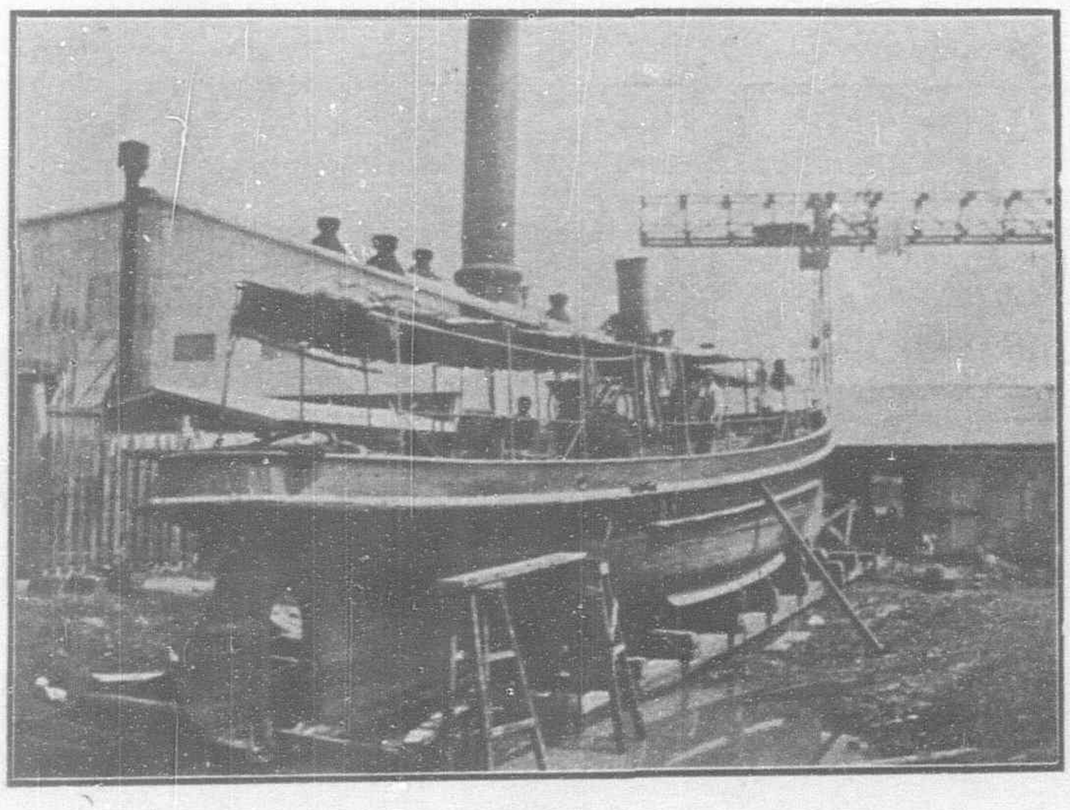
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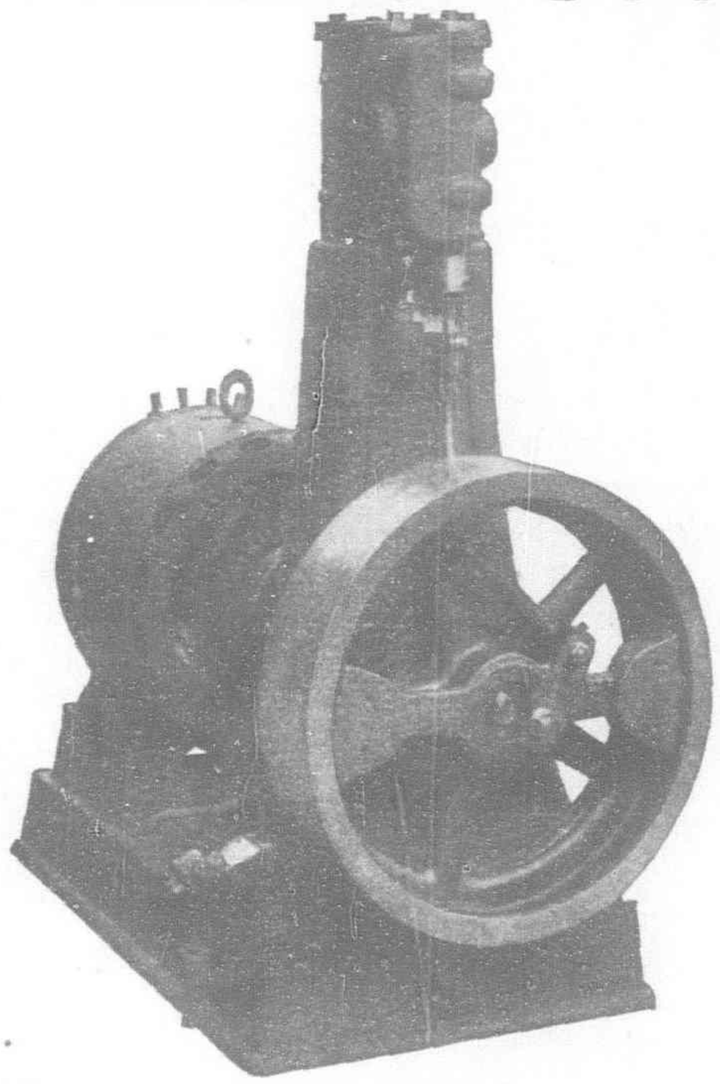
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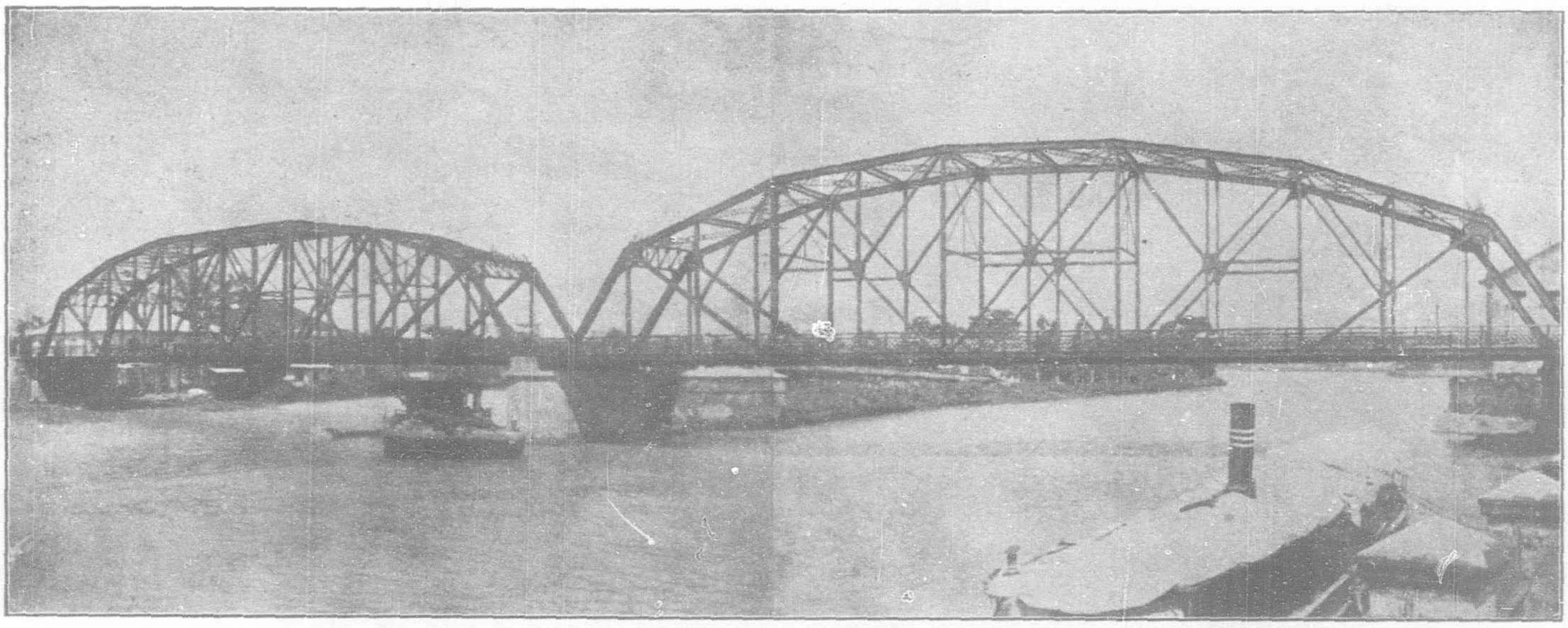
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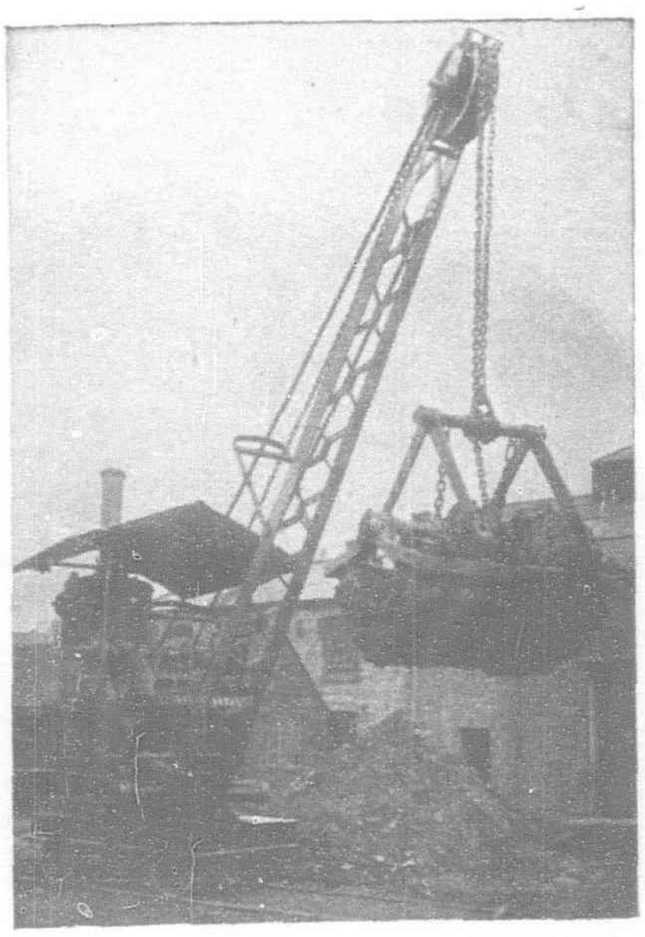
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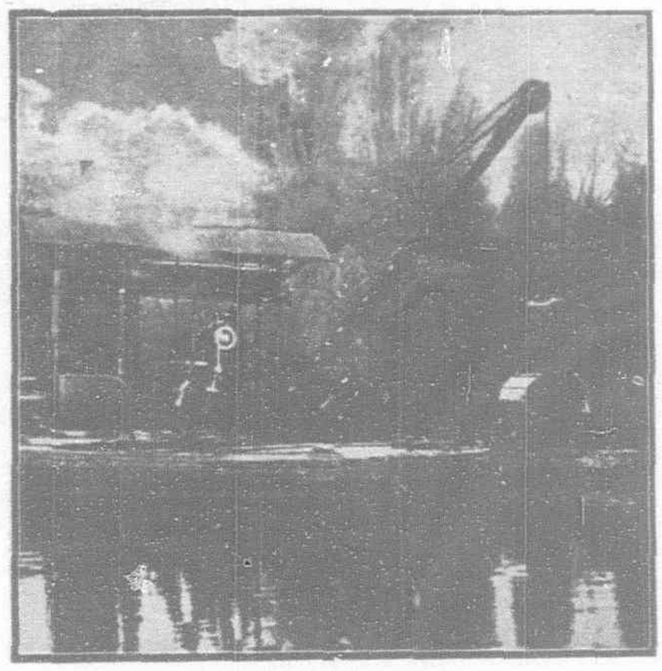


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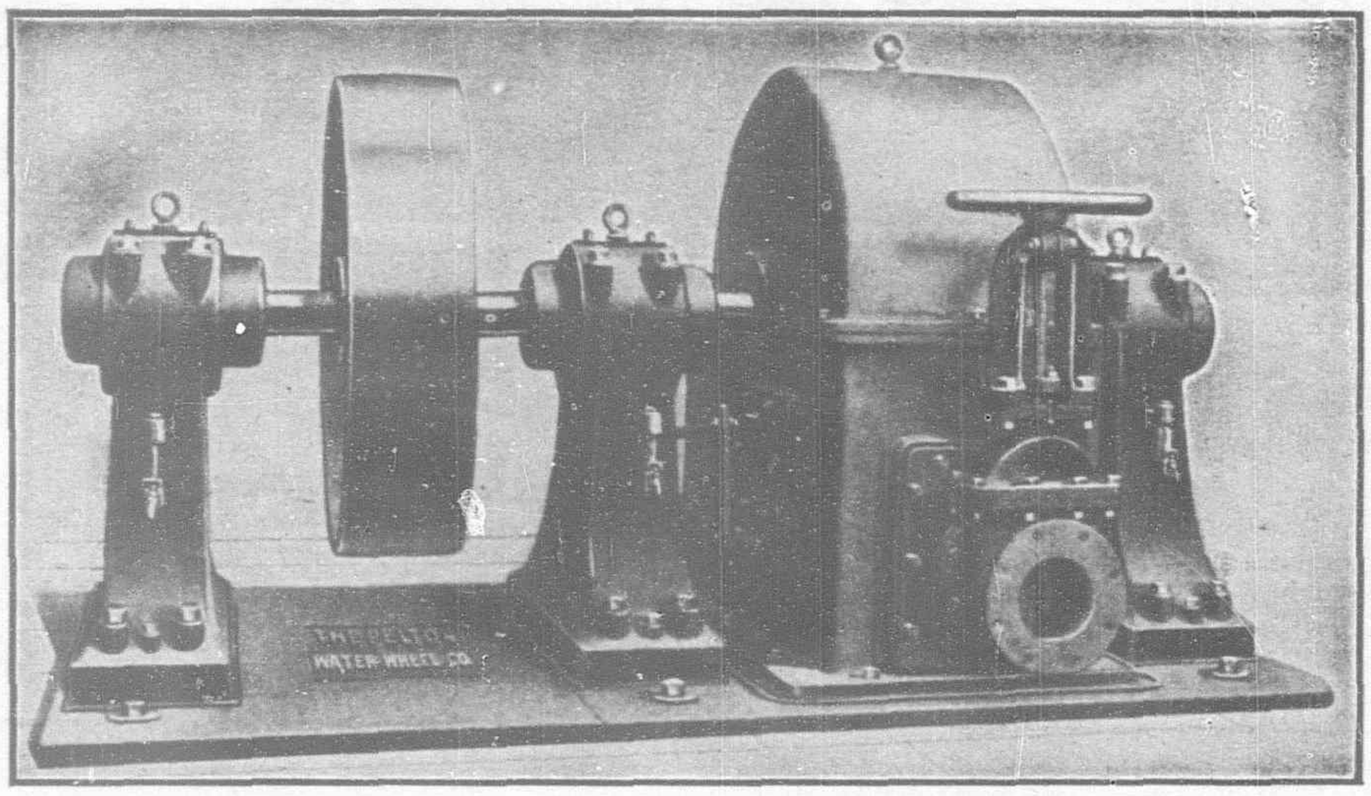
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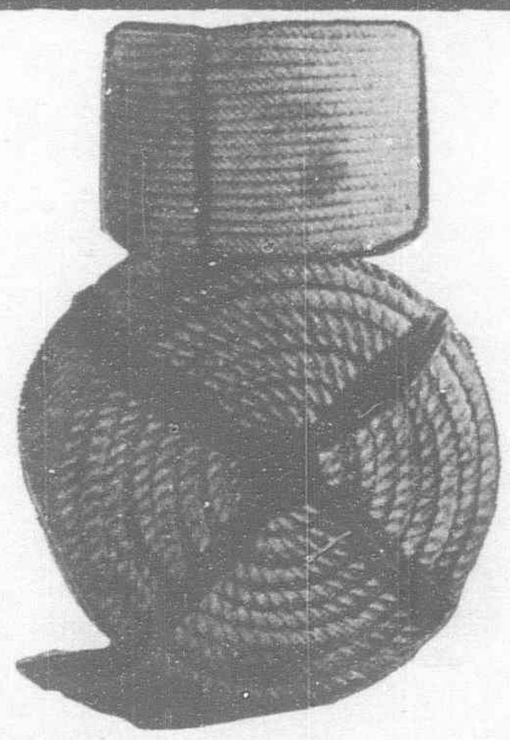
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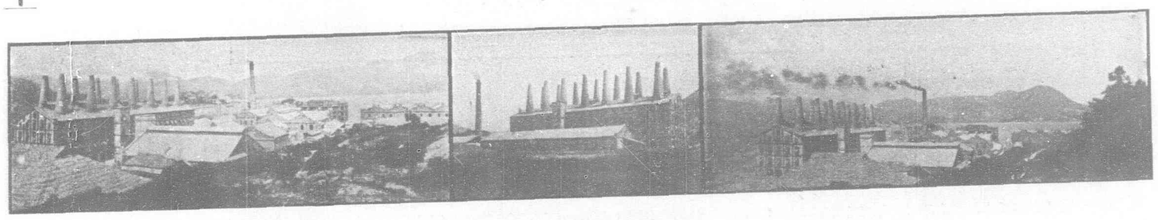
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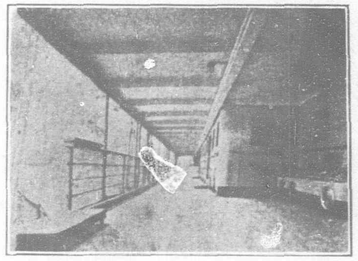
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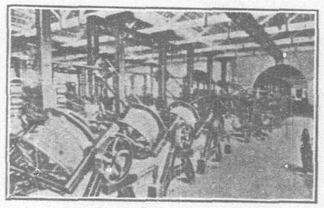
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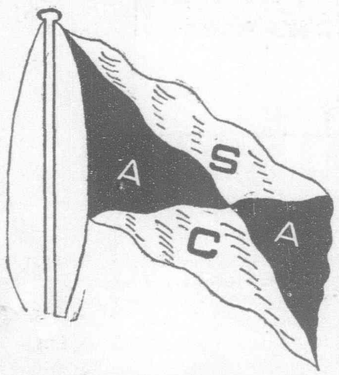
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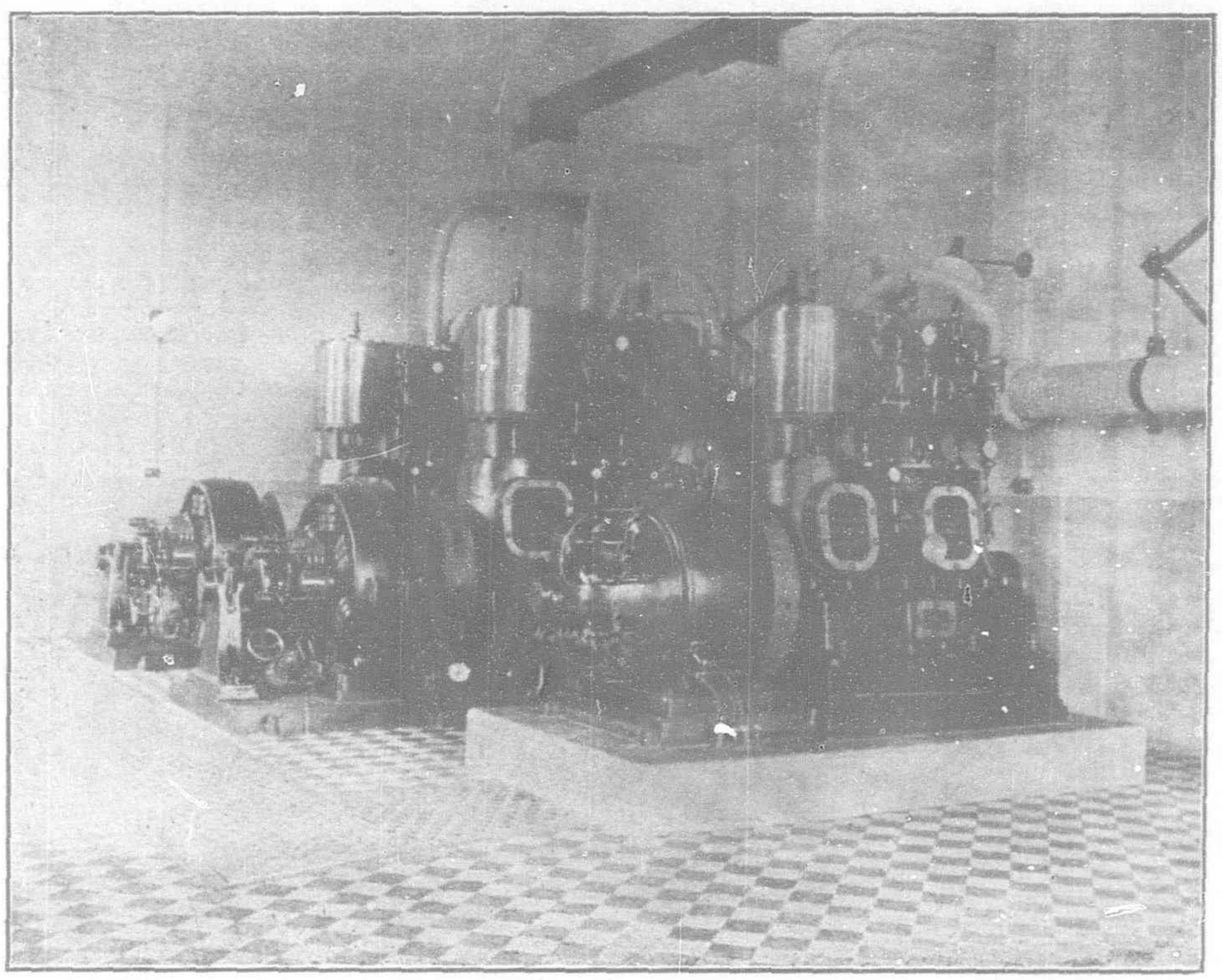
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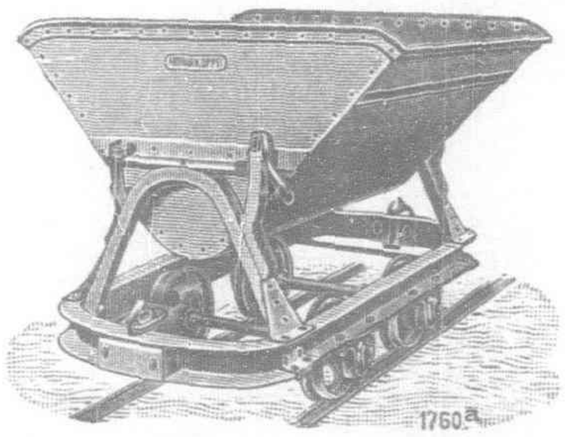
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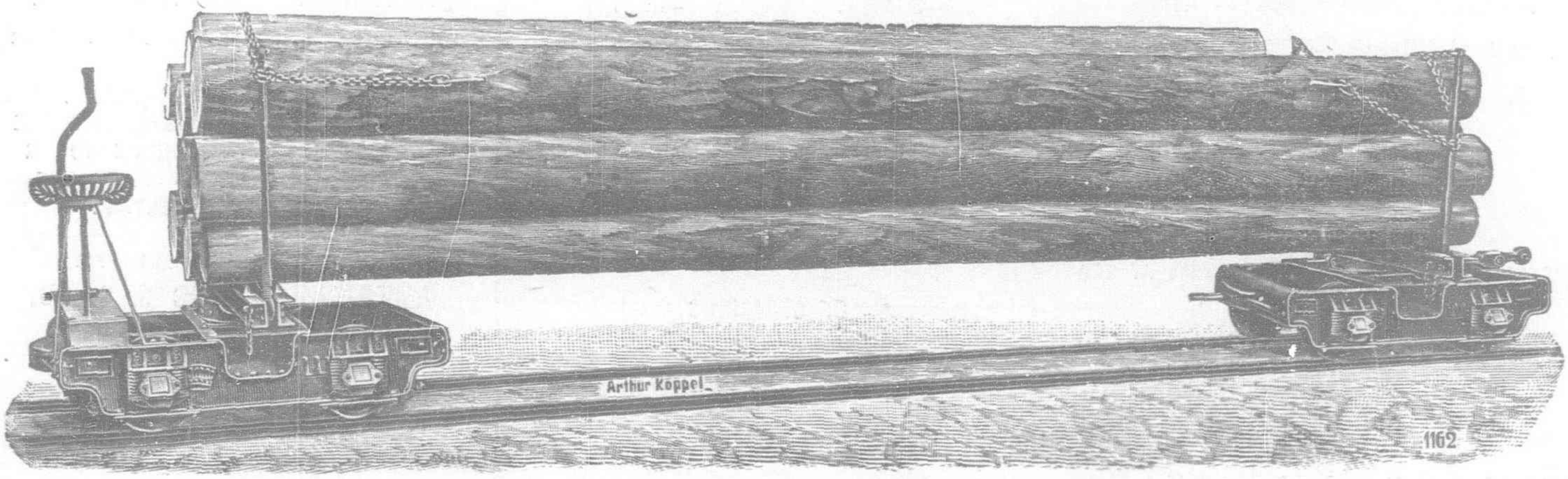
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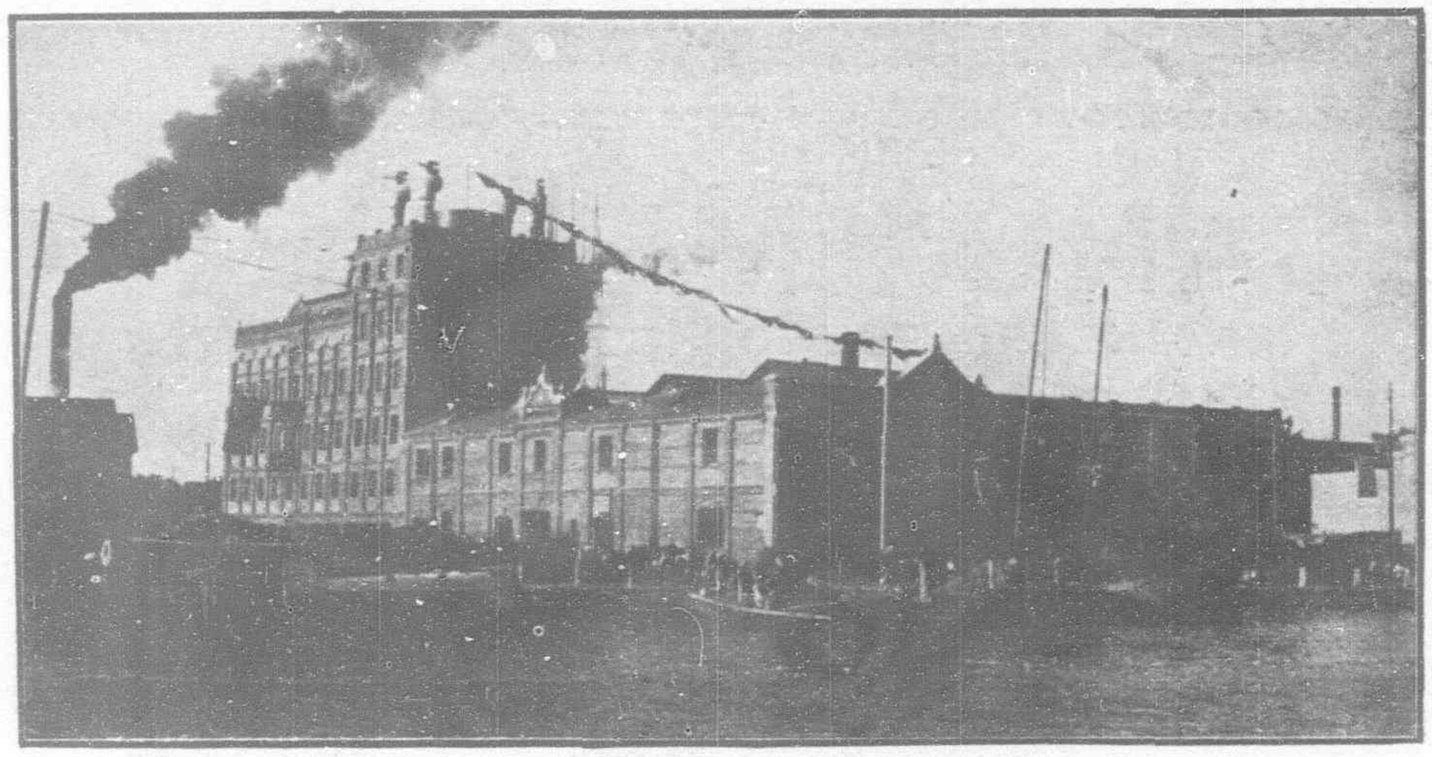
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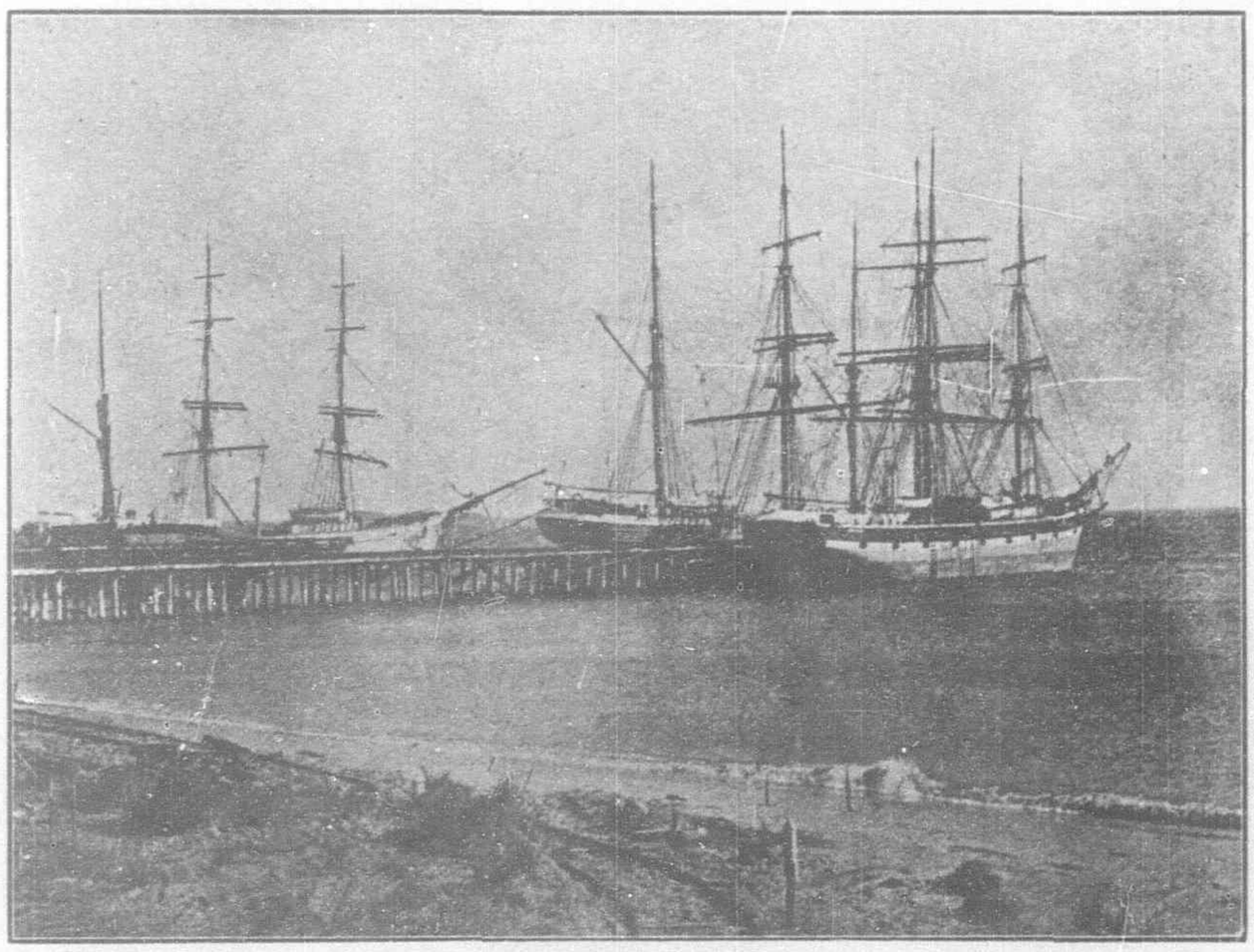
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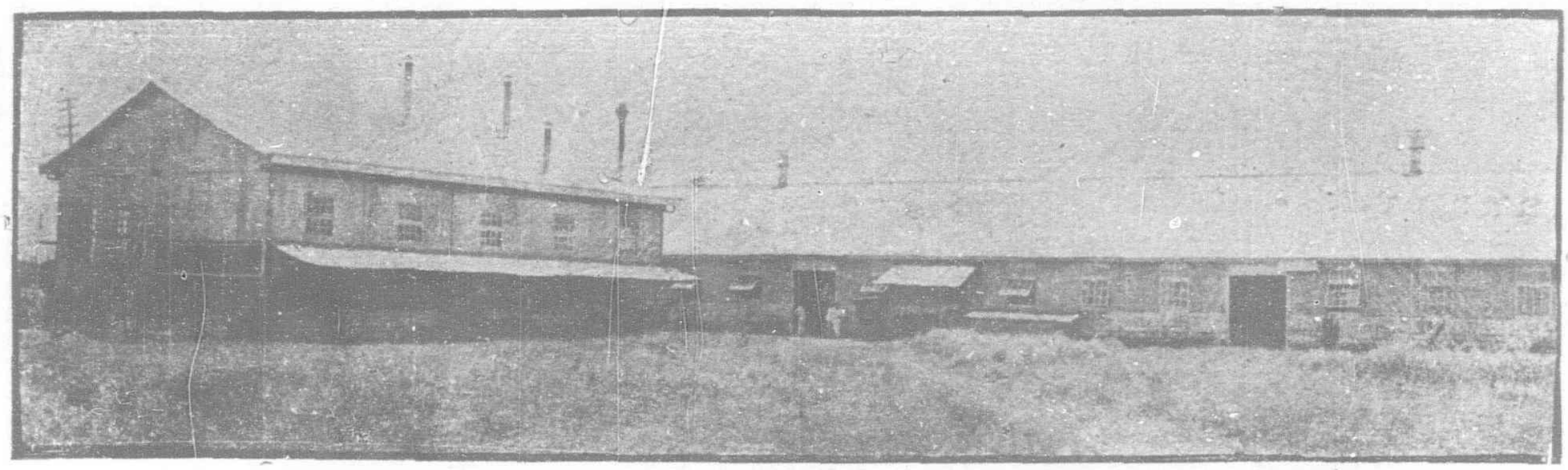
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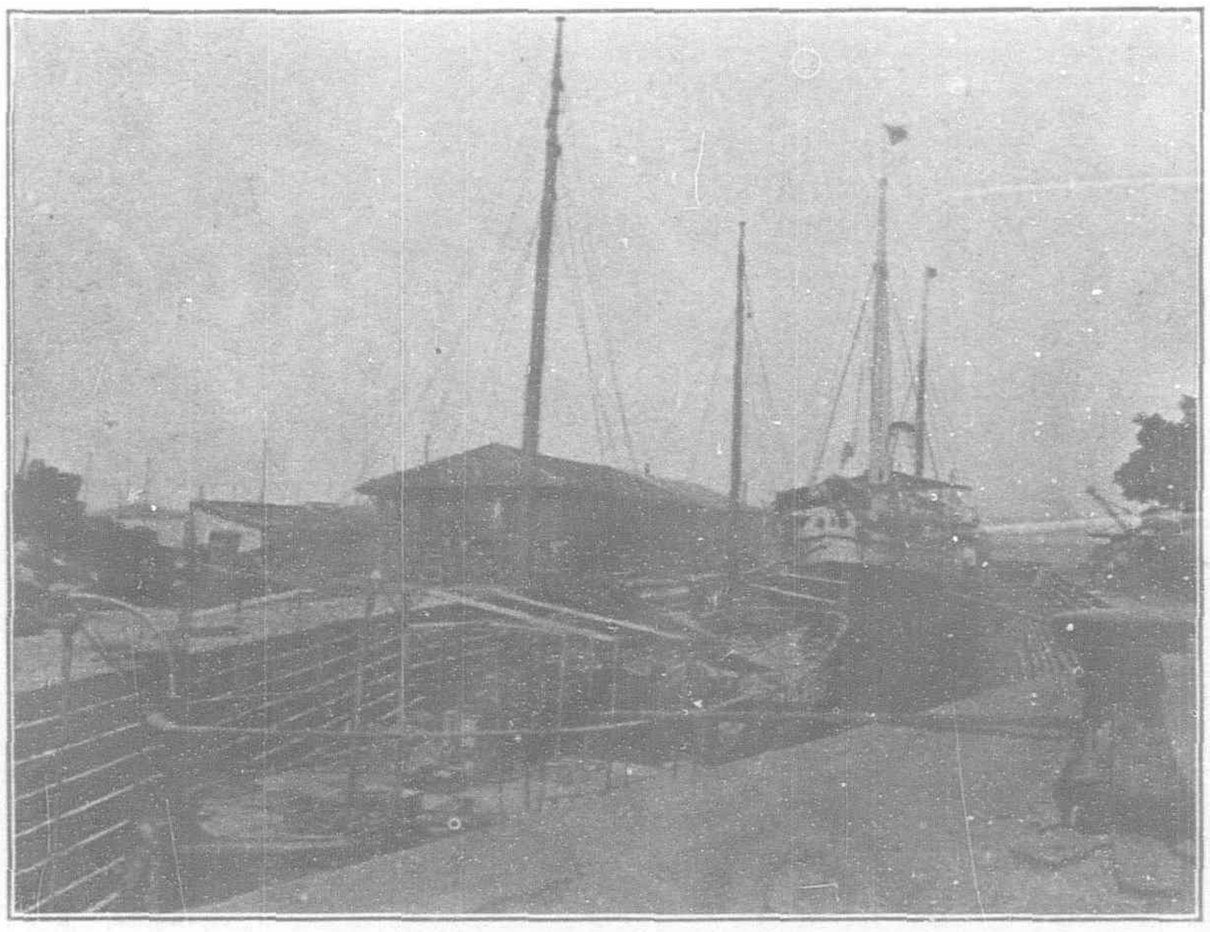
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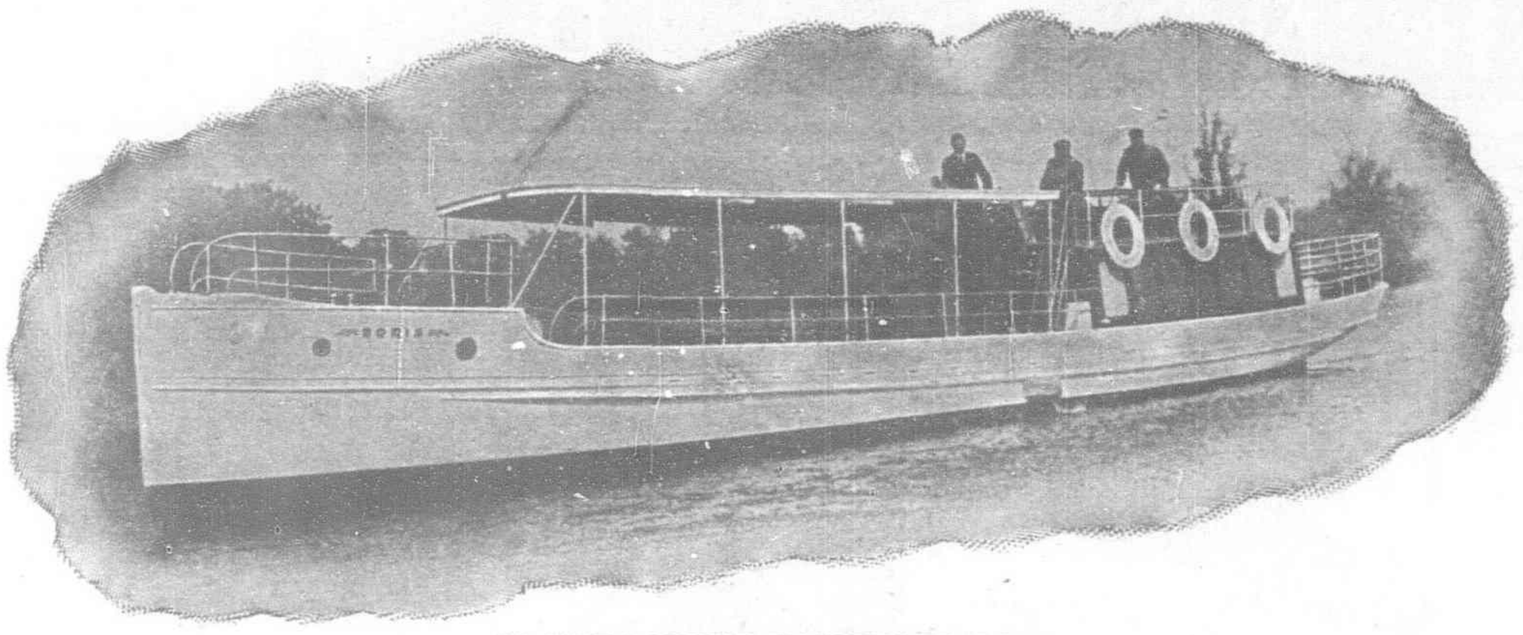
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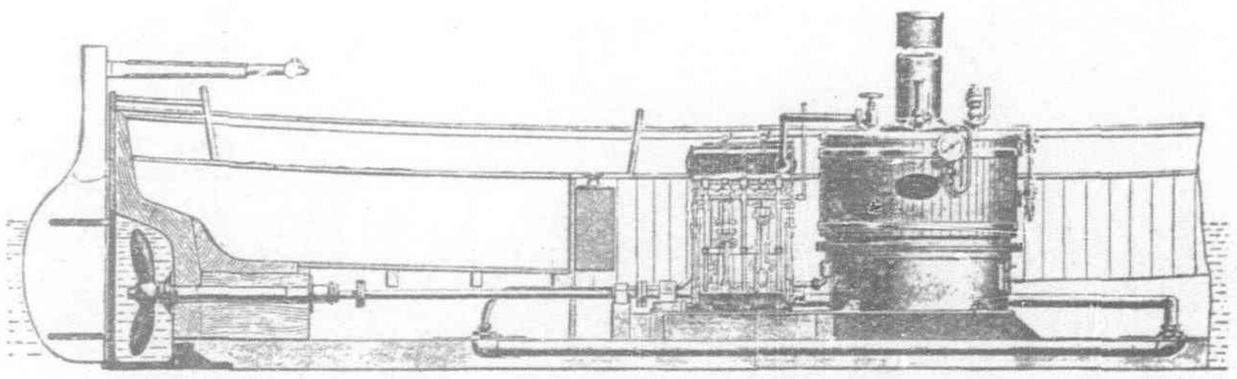
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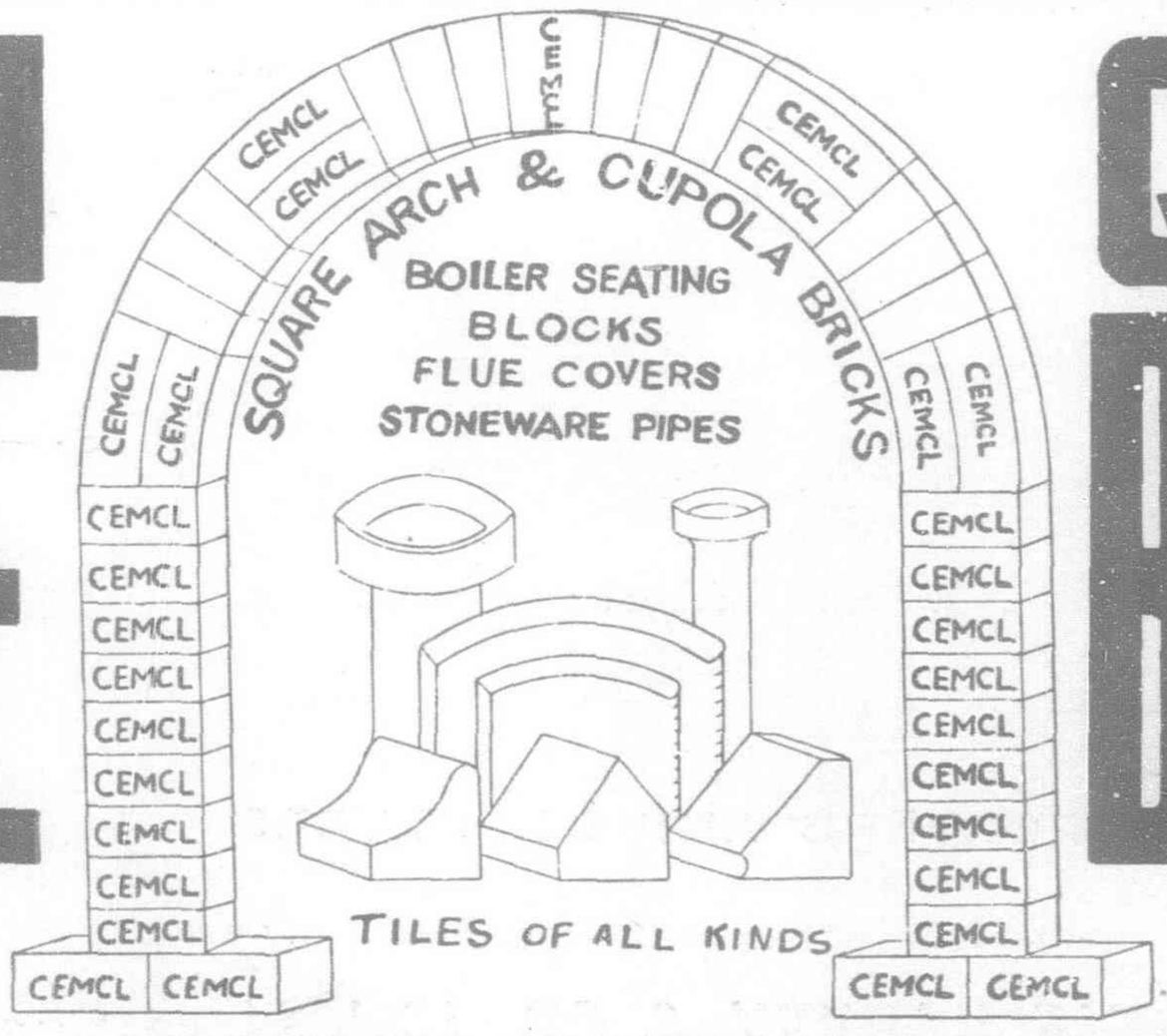
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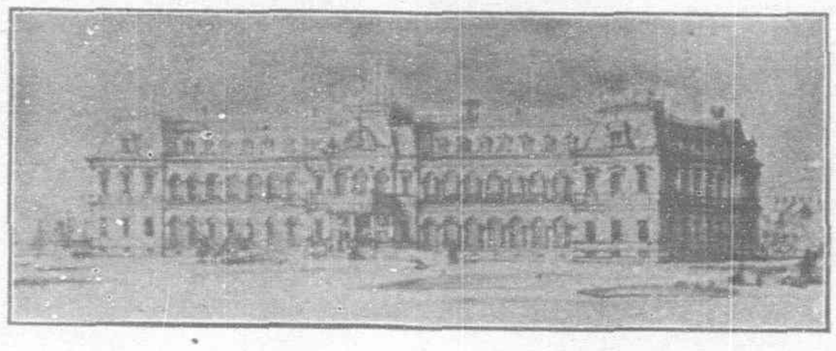
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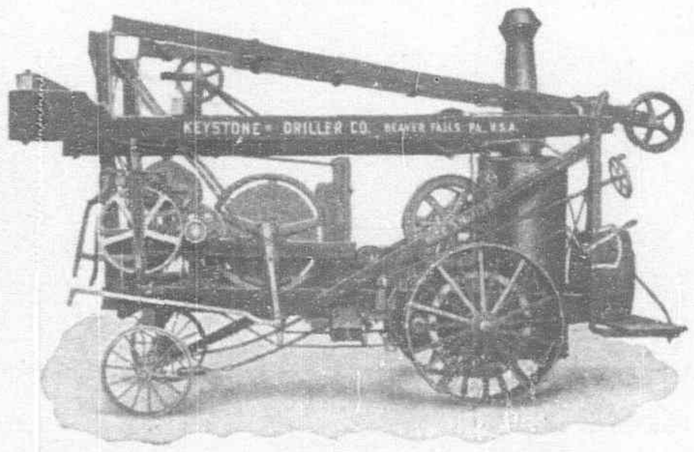
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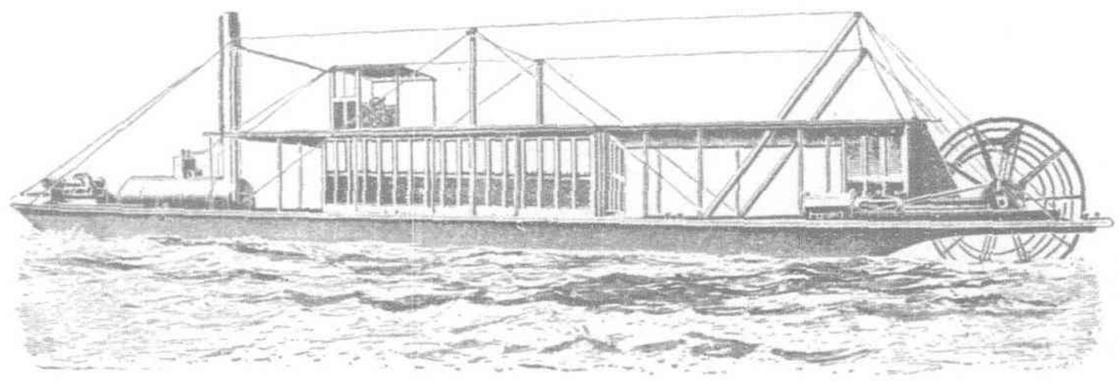
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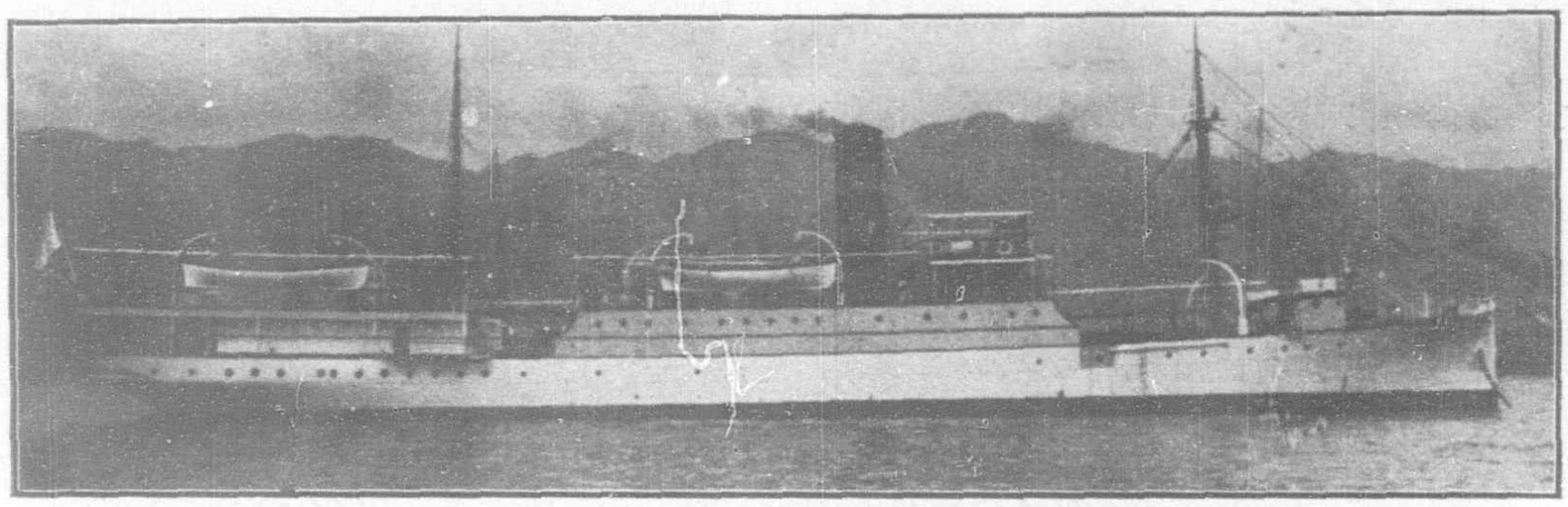
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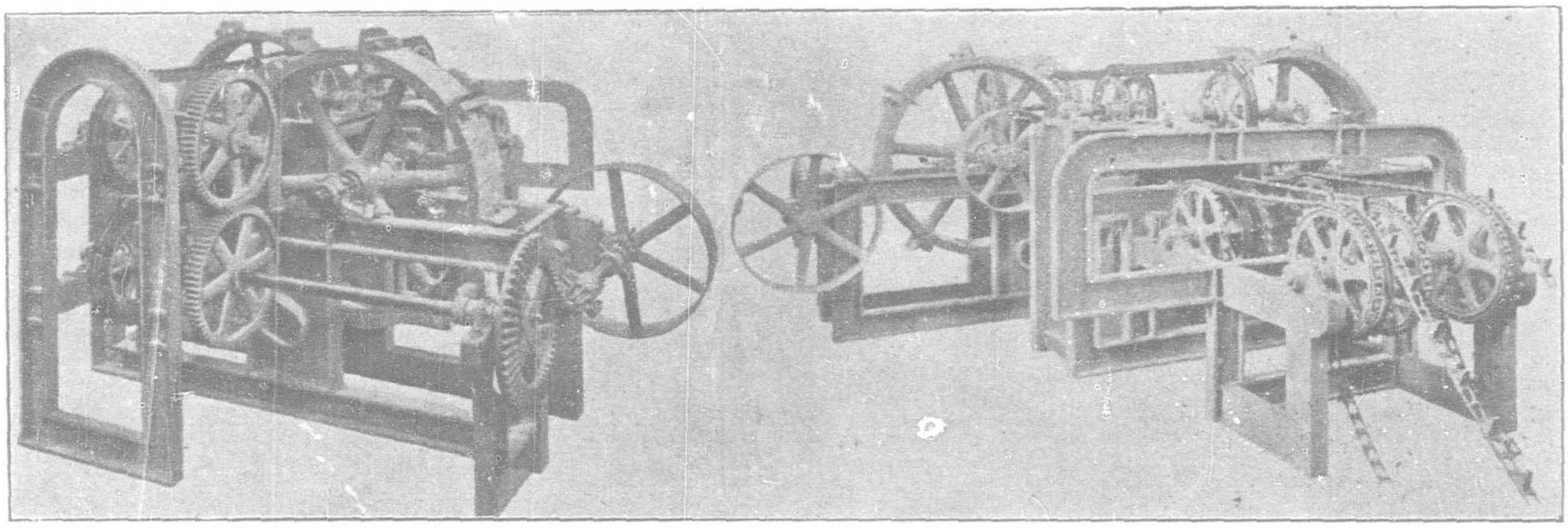
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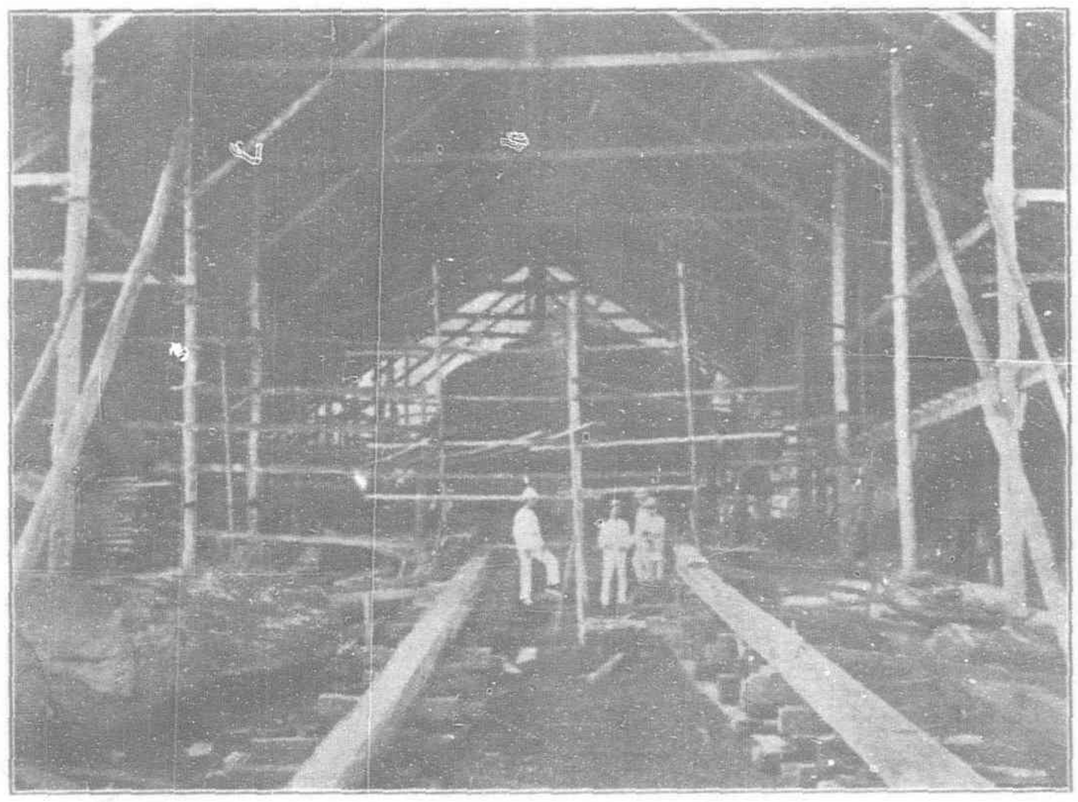
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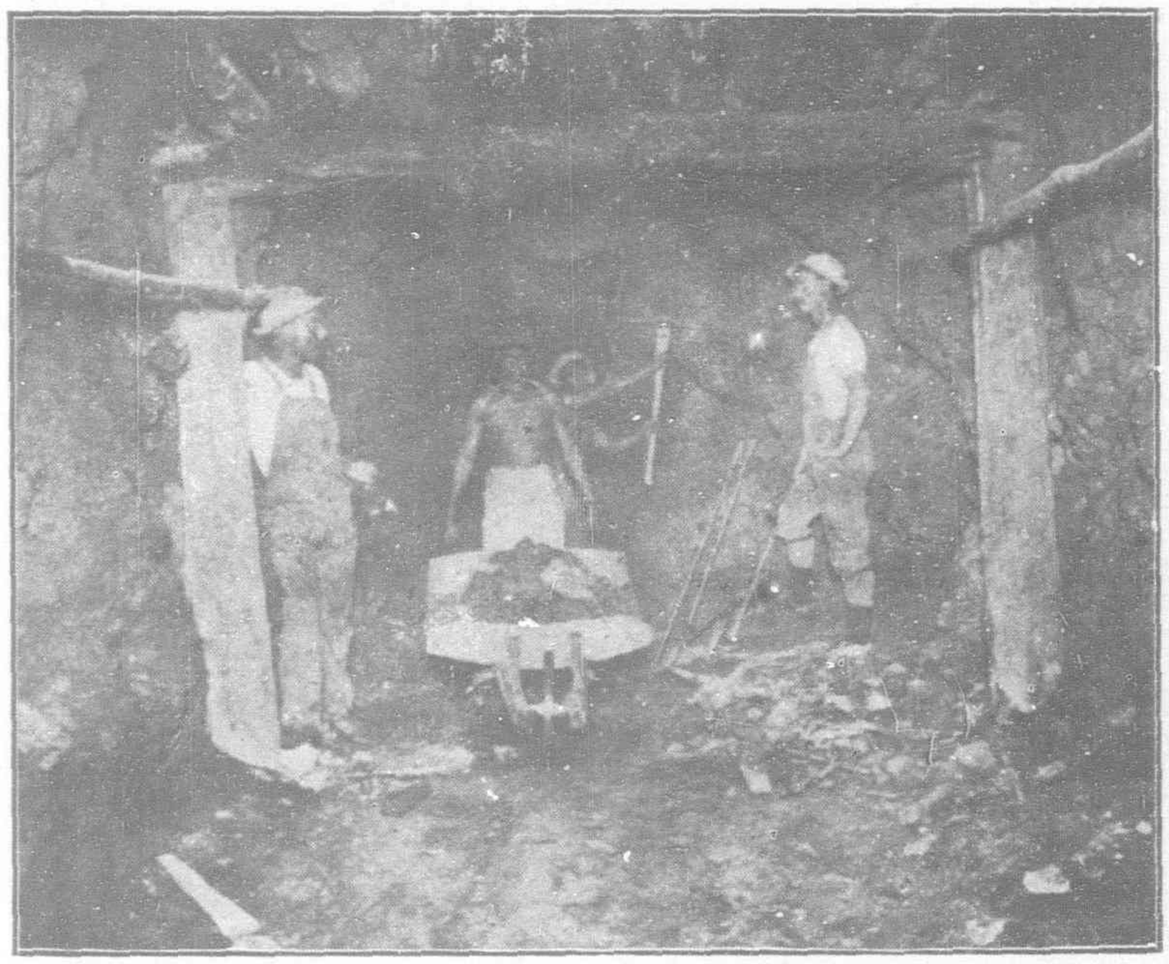
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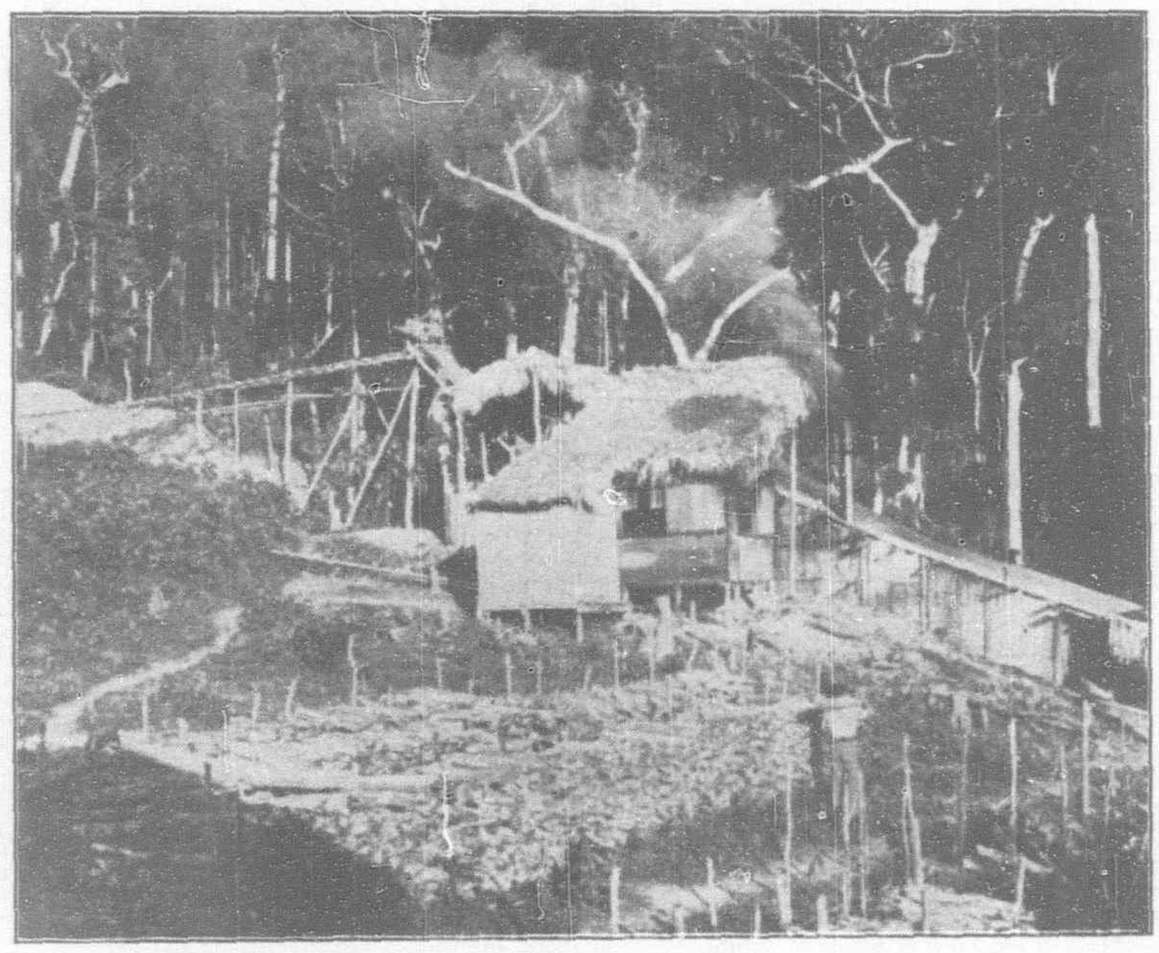
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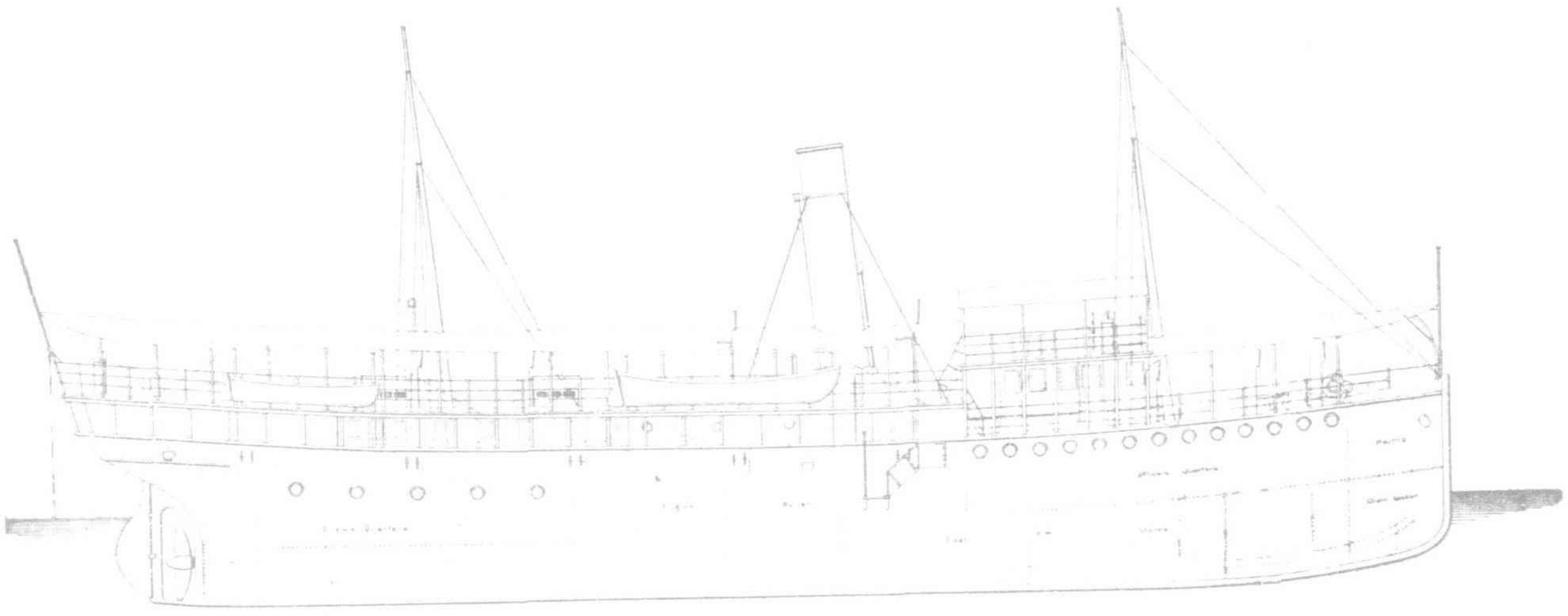
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THE COMPANY'S DOCKS at KOWLOON, TAI-KOK-TSUI and ABERDEEN are in efficient working order, and the attention of Captains and Shipowners is respectfully solicited to the advantages which these Establishments offer for Docking and Repairing Vessels.

The Company has SIX GRANITE DOCKS and TWO PATENT SLIPS of the following dimensions:—

NAME OF DOCK OR SLIP	LENGTH ON KEEL BLOCKS	BREADTH AT ENTRANCE	DEPTH OVER SILL AT ORDINARY SPRING TIDES	RISE OF TIDE: SPRINGS	RISE OF TIDE: NEAPS
KOWLOON	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
No. 1 Dock, Kowloon	576	86 feet top / 70 ft. bottom	30′	7′ 6″	3
No. 2 Dock, Kowloon	371	74′	18′ 6″	7′ 6″	—
No. 3 Dock, Kowloon	264	49′ 3″	14′	7′ 6″	—
Patent Slip, No. 1, Kowloon	240	60′	14′	7′ 6″	—
Patent Slip, No. 2, Kowloon	220	60′	12′	7′ 6″	—
TAI-KOK-TSUI					
Cosmopolitan Dock	466	85′ 6″	20′	7′ 6″	—
ABERDEEN					
Hope Dock	430	84′	23′	7′ 6″	—
Lamont Dock	333	64′	16′	7′ 6″	—

The DOCKS are fitted with every appliance in the way of Caissons, powerful Centrifugal Steam Pumps, etc., which enable them to be pumped out in three hours.

WORKSHOPS.—The extensive workshops on the premises at Kowloon, Cosmopolitan, and Aberdeen Docks possess every facility and appliance necessary for the repairs of ships and steam machinery. The Engineers' Shops are supplied with a large plant of the latest types of tools in the way of Lathes, Planing, Milling and Screwing Machines, Electric Cranes, etc., etc., and capable of executing the largest class of work with despatch. The Shipwrights' Department has attached to it a Steam Sawmill with Circular, Vertical and Band Saws, and also a complete plant of Wood-working Machinery of the most modern and improved type. The Blacksmiths' Shops are equally well furnished with a complete supply of powerful Steam Hammers, Cranes, etc., capable of forging stern posts and crank and straight shafting of the largest size.

Powerful Lifting Shears with steam purchase at two of their Establishments stand on a solid granite seawall, alongside which vessels can lie drawing 24 feet of water, and take in or out boilers, etc. The Shears at Kowloon are capable of lifting 70 tons.

The Company is prepared to tender for the construction of new vessels in either steel, iron or wood, having already built about 400 of varying sizes up to 3,000 tons; also to execute all kinds of ship work at lower rates and with greater despatch than any establishment in the East. Every department is under the close supervision of experienced European foremen.

SHIP-YARD is fully equipped with modern plant, including hydraulic flanging and bending machines, electrically driven rolls, punching, shearing, angle-bevelling, joggling and planing machines, capable of dealing with the heaviest class of work.

BOILER-MAKERS' DEPARTMENT.—The Company, in addition to executing repairs, is prepared to tender for new boilers to steamships for the construction of which it possesses special facilities, including powerful punching and shearing machines, hydraulic rivetters, etc.

FOUNDRY.—The Foundry is fitted with a large powerful Steam Crane and the Cupolas are capable of casting up to 100 tons. The Company is prepared to supply the very best Iron and Brass Castings of all descriptions upon the shortest notice.

GALVANIZING PLANT of the most modern type by electrical deposit has been put up at the Kowloon Establishment, which is capable of doing the largest class of work.

STORES.—The Company's Godowns contain large and well-selected stocks of all material and fittings requisite in shipbuilding, engine-room outfits furnishings, and ships' stores of all descriptions supplied at tariff rates.

For Further Particulars apply at the Offices of the Company, Queen's Buildings, No. 1, New Praya, Hongkong, or to

FINDLAY & CO., Agents, Manila, P. I.

Cable Address:
"FARNHAM," SHANGHAI

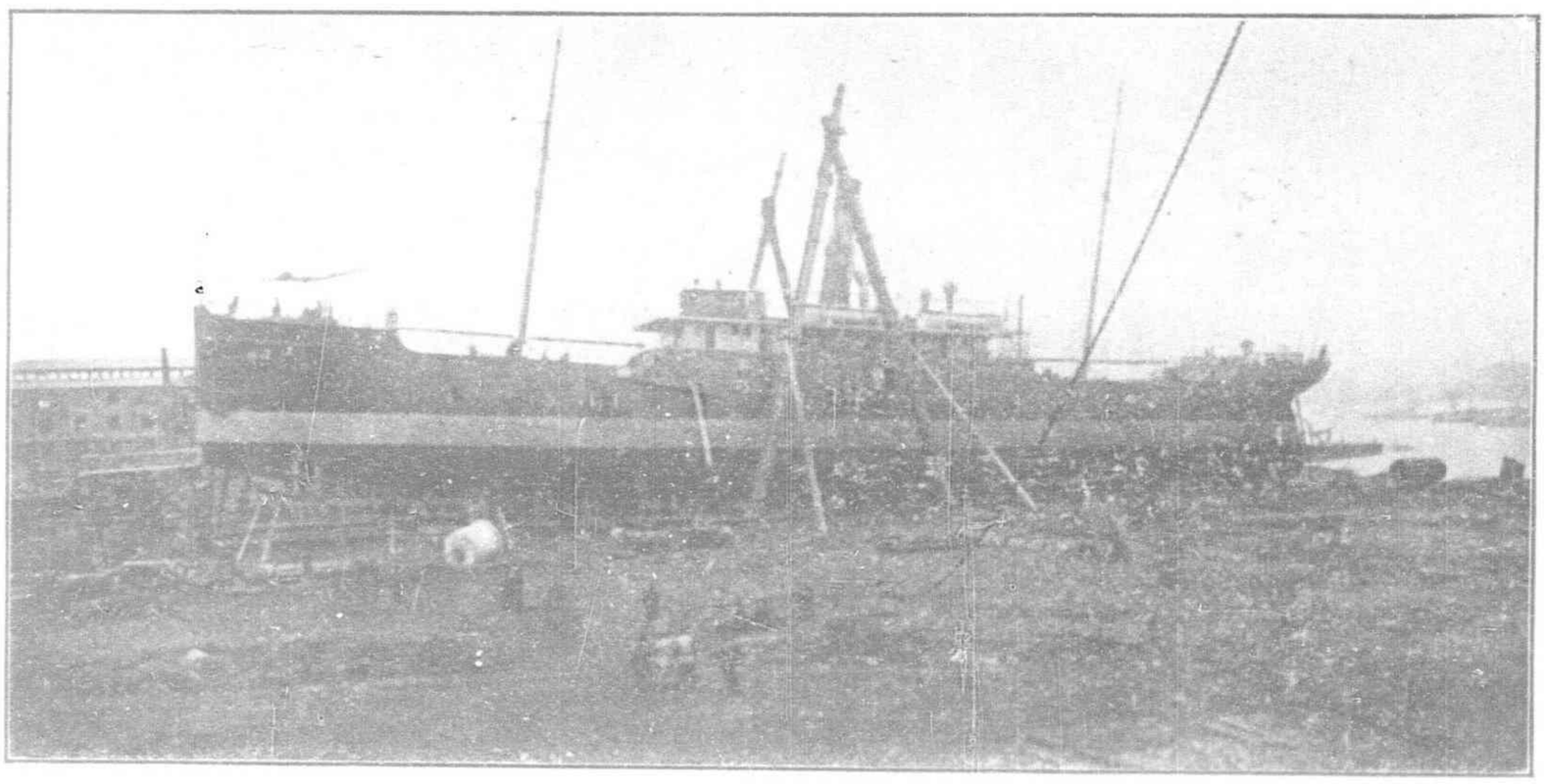
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A I., A B C (4th & 5th Editions)
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THE SHANGHAI DOCK AND ENGINEERING CO., LTD.

(Late S. C. Farnham, Boyd & Co., Ltd.)

SHANGHAI, CHINA

Dock Owners, Engineers, Founders, Boiler-makers, Shipbuilders, and Electricians



CHINA MERCHANTS' S. N. CO.'S SCREW STEAMER "HSINKONG."

THE DOCKS

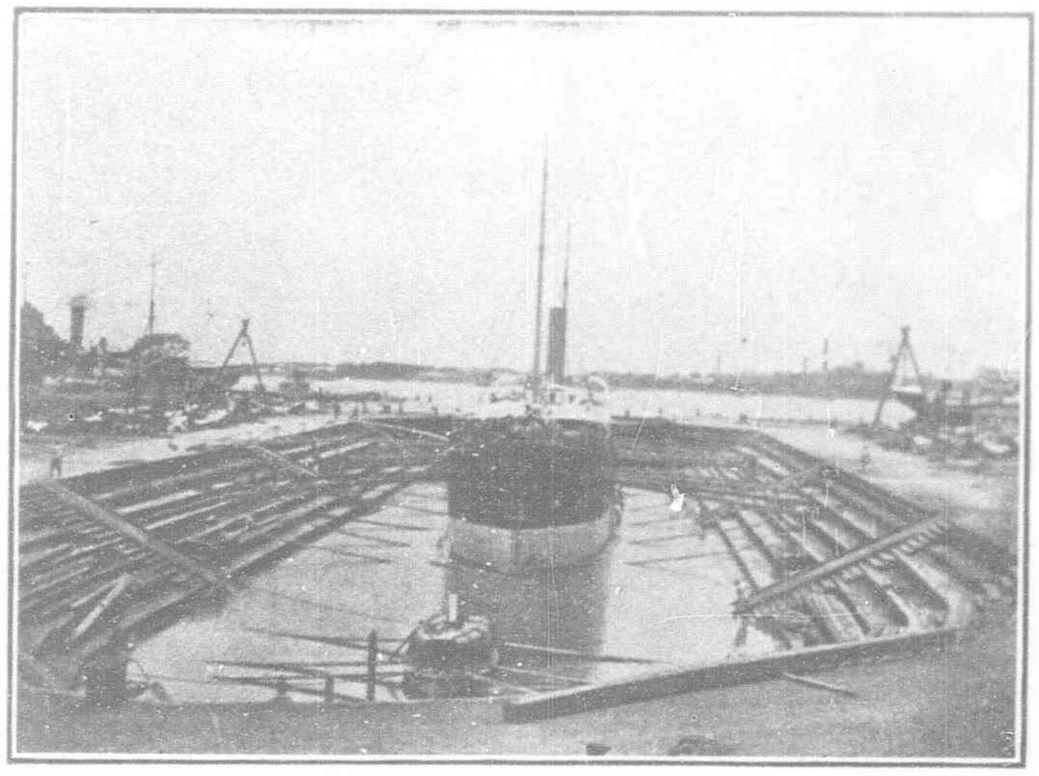
The Docks are five in number ranging in length from 360 feet to 560 feet, and breadth of entrance from 57 feet to 83 feet, with the depth of water on the sill from 16 feet to 24 feet.

The Dock charges are very moderate.

The Water Frontage is about 1½ miles in length. Wharves and Pontoons are arranged where steamers can moor during repairs; and slips for hauling up small vessels are provided. Sheer legs capable of lifting 65 tons are placed at the various Docks.

The extensive shipbuilding yards and workshops are provided with the latest improvements in tools, traveling cranes of 70 tons' capacity, hydraulic and pneumatic machinery.

Lit up by electric light with railway lines through workshops and yards.



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Powerful salvage appliances can be supplied at short notice. Enquiries immediately attended to.

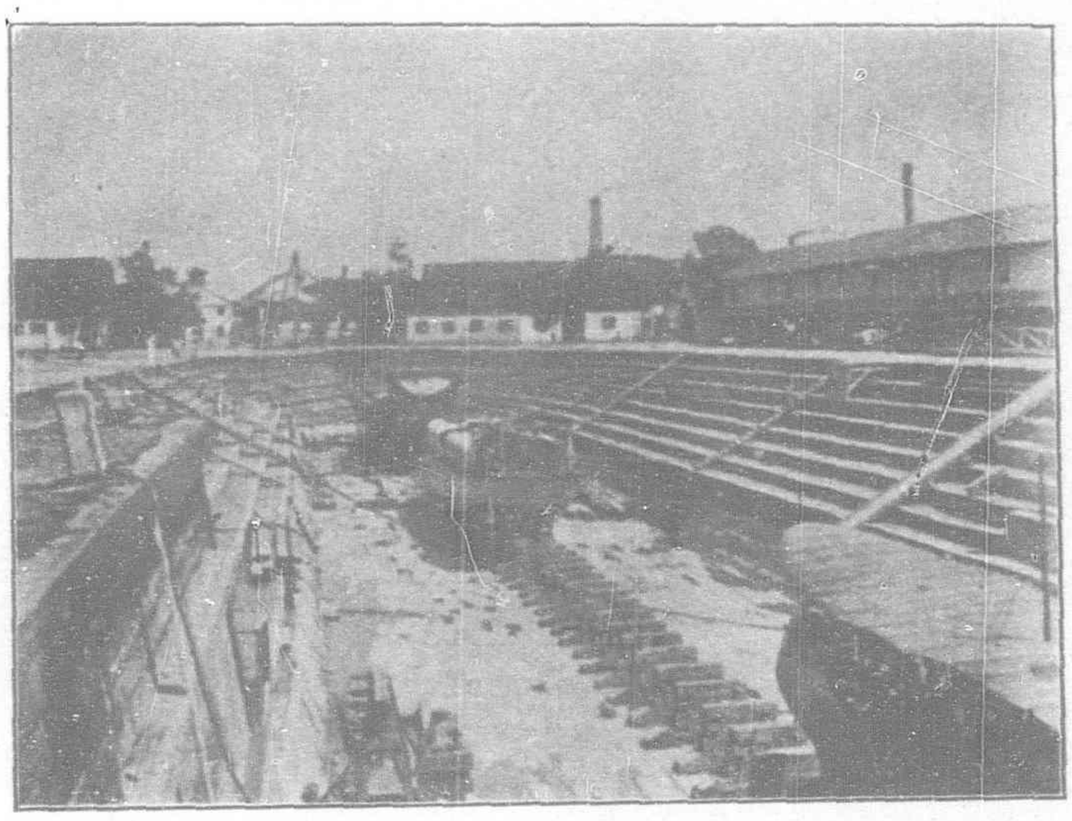
Estimates given for all classes of work; Coast Steamers, Side and Stern-Wheelers, Tugboats, Launches, Steam Barges, Dredgers, Floating Cranes, and Lighters a speciality.

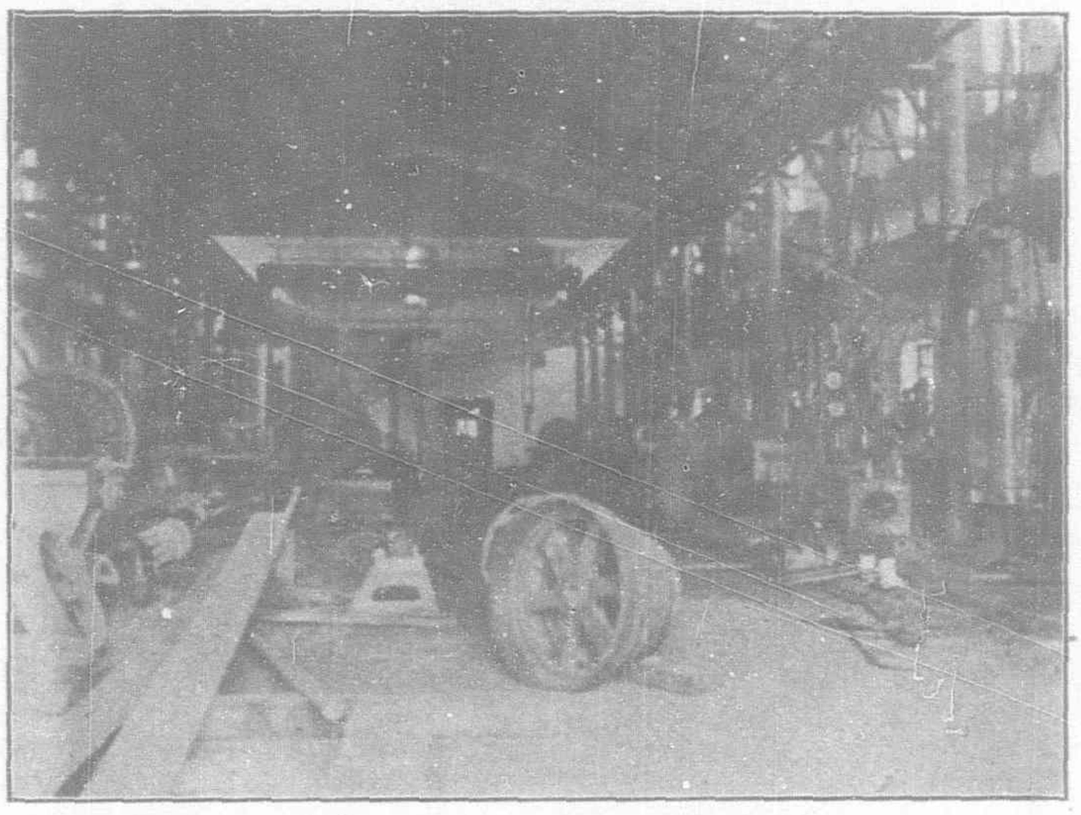
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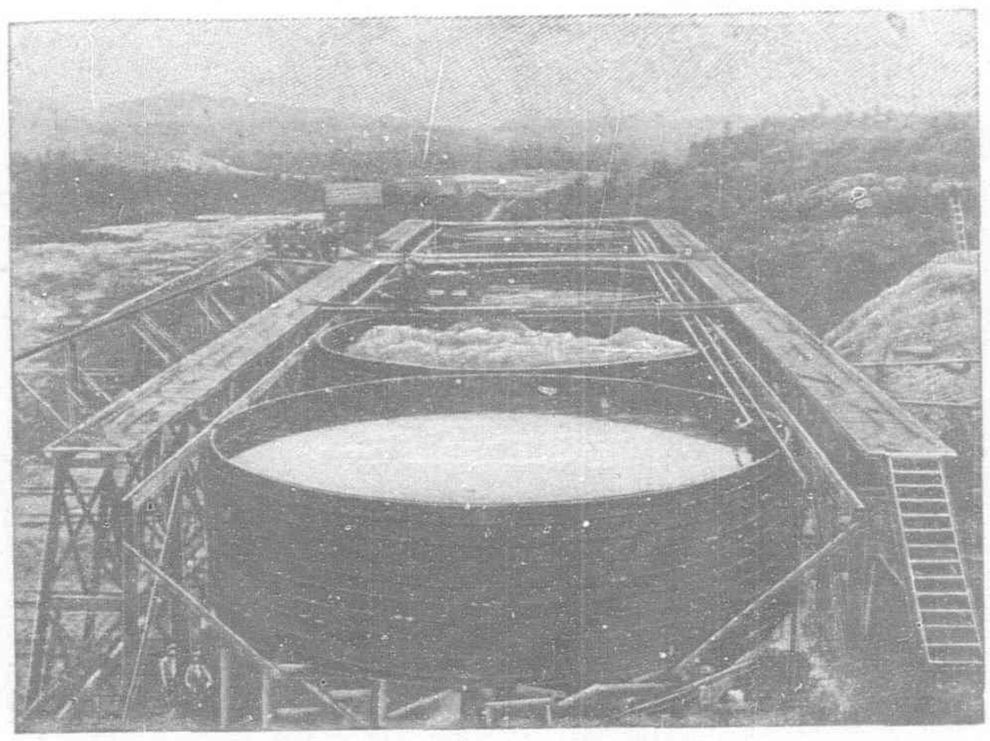
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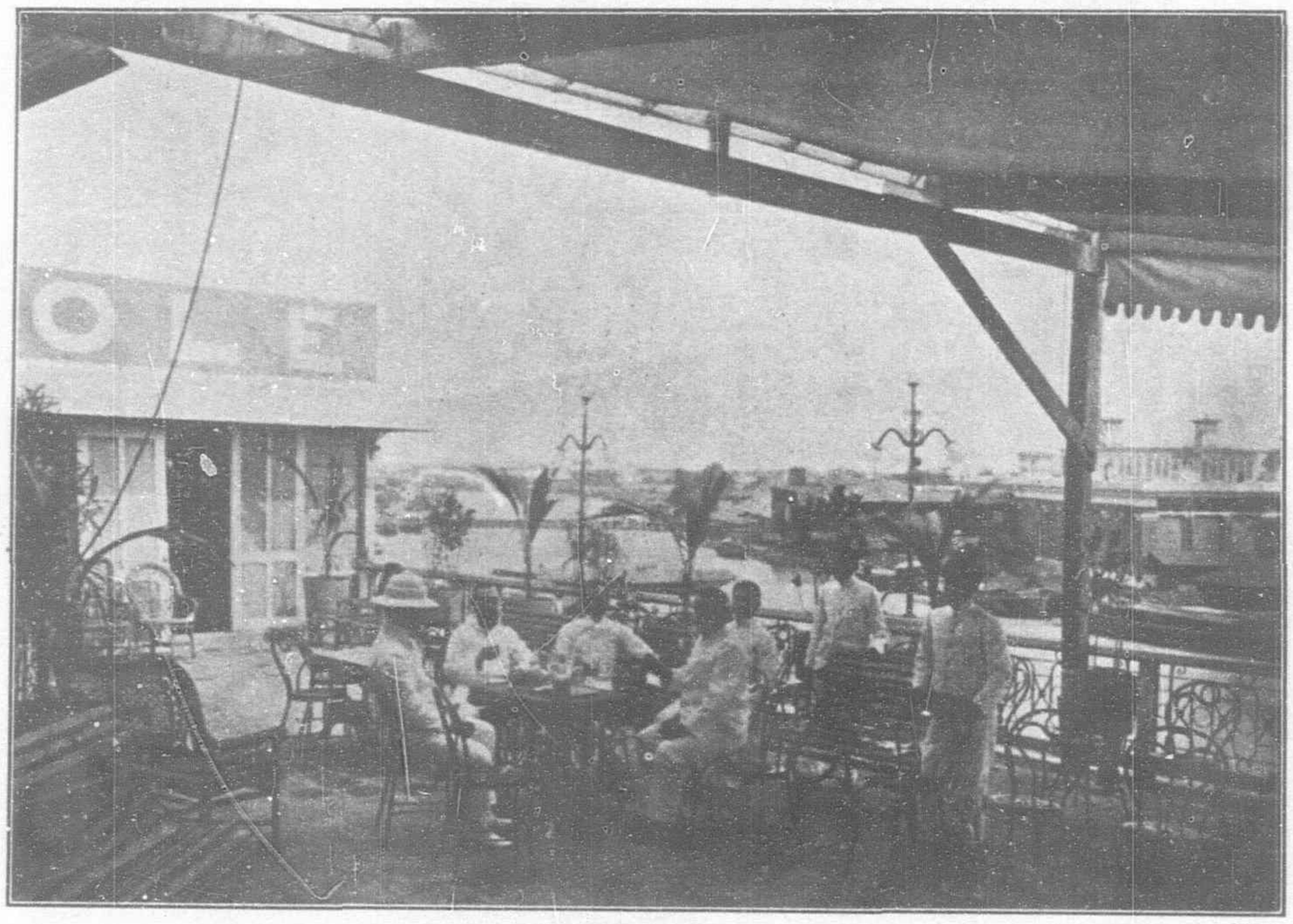
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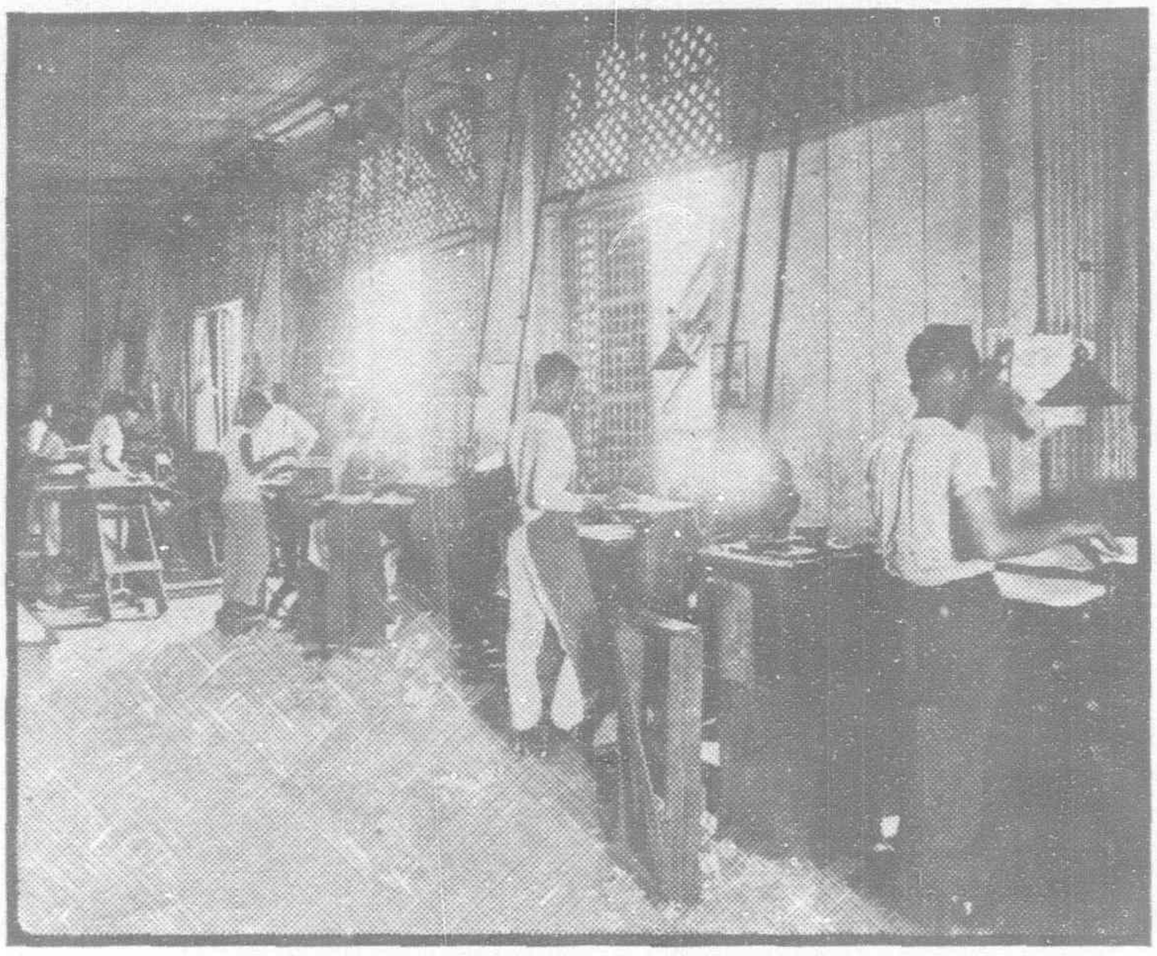
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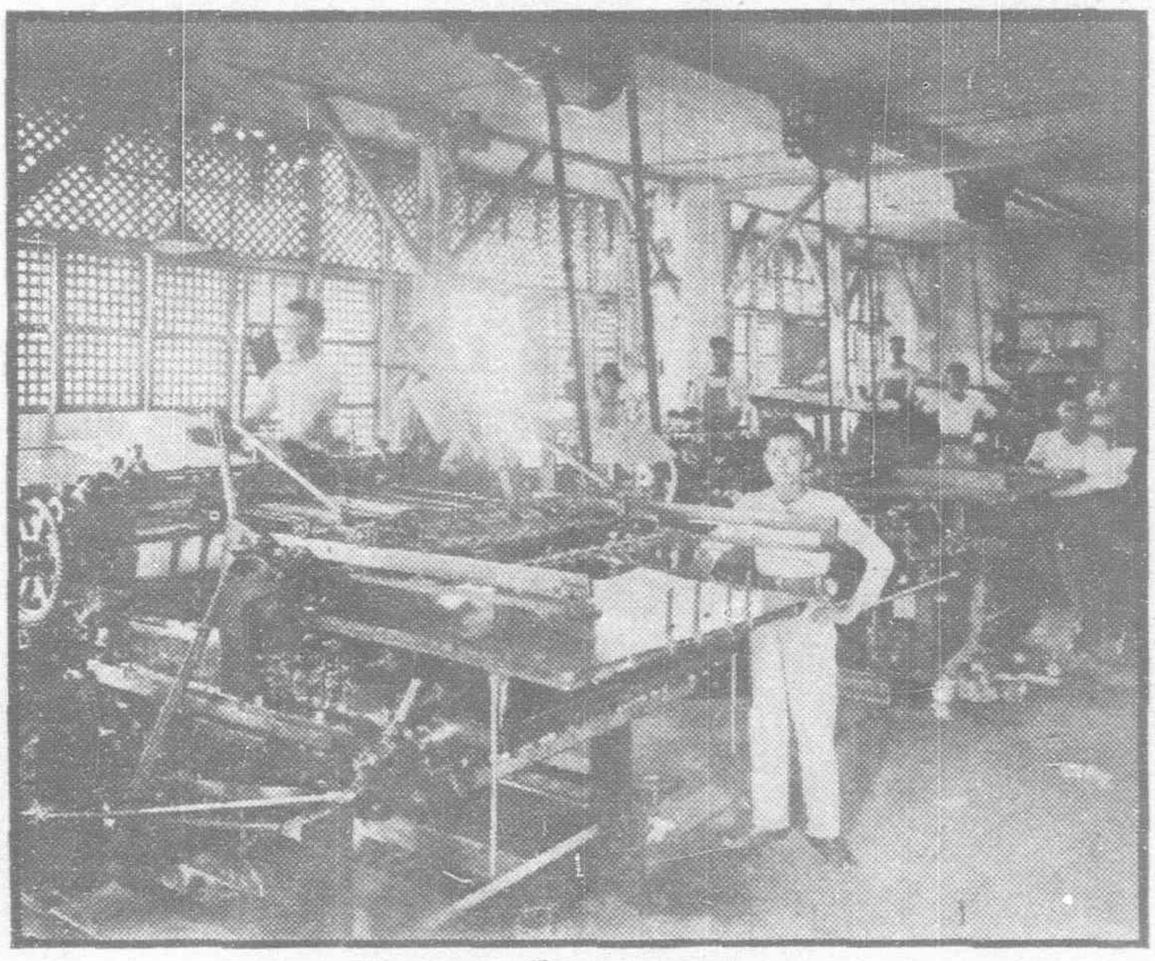


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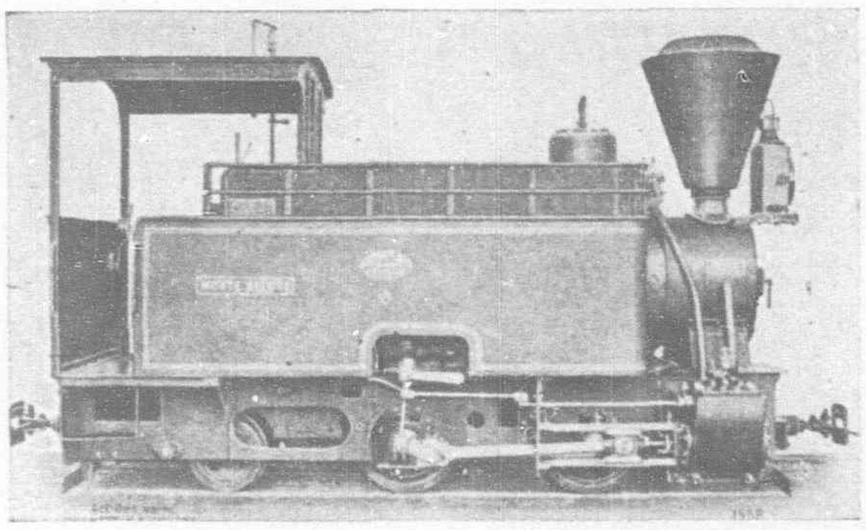
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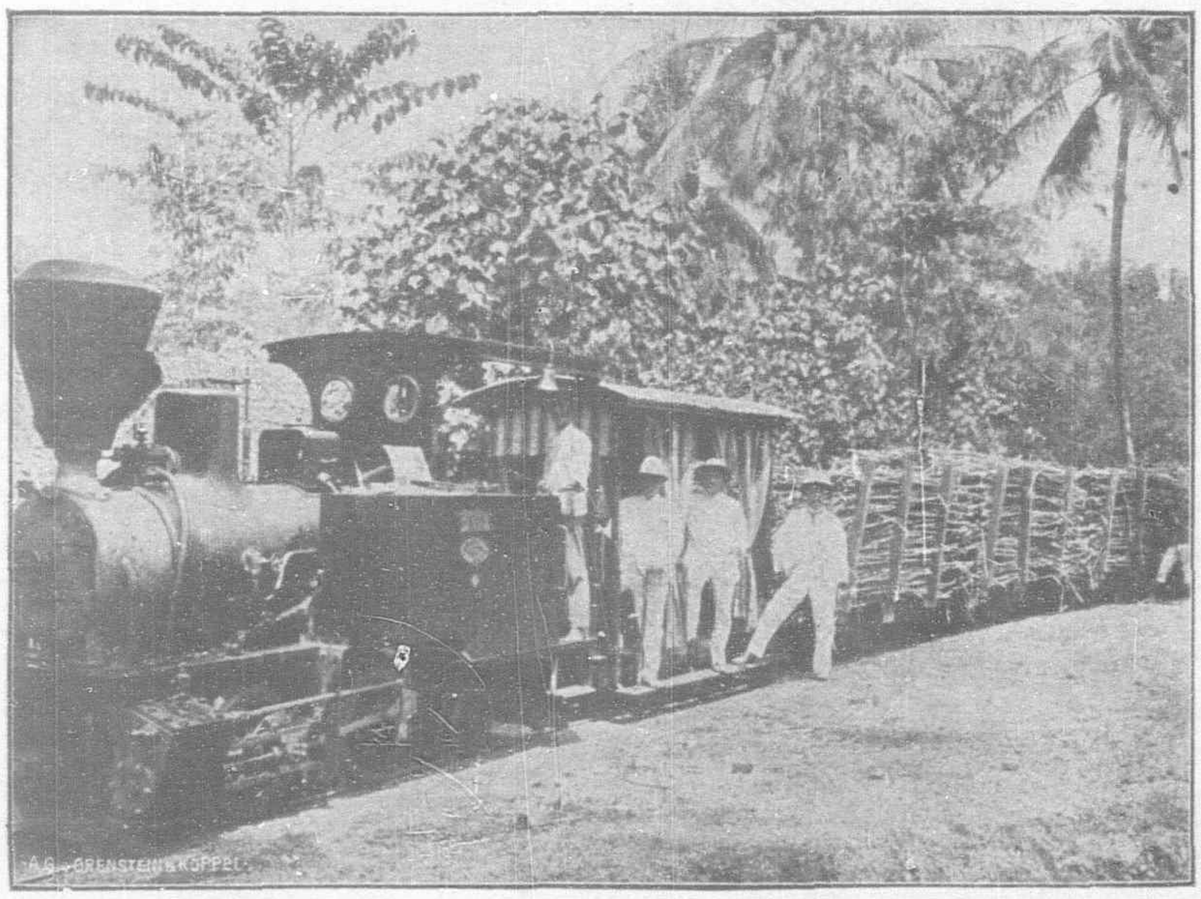
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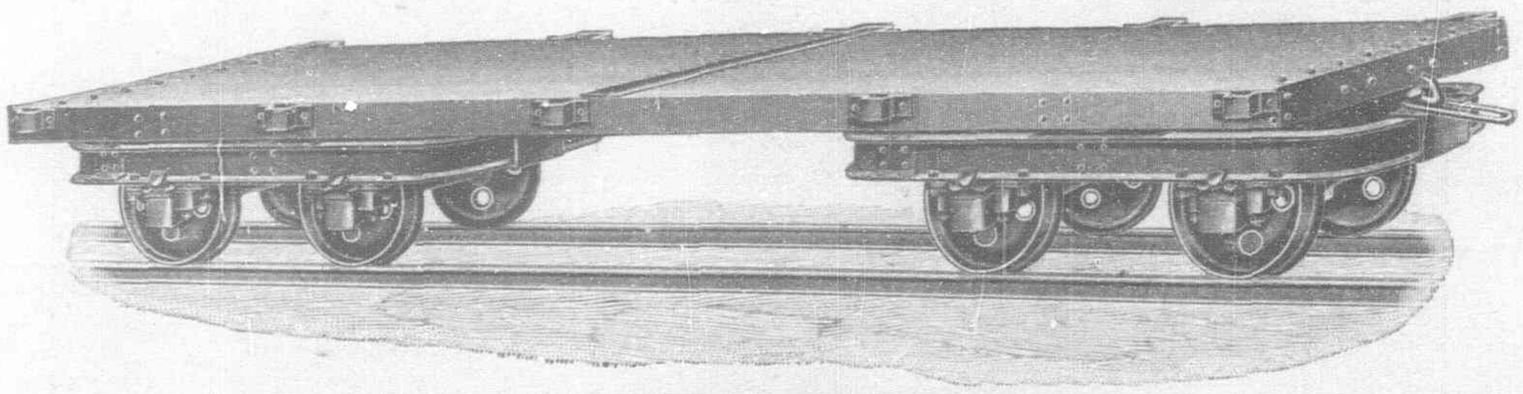
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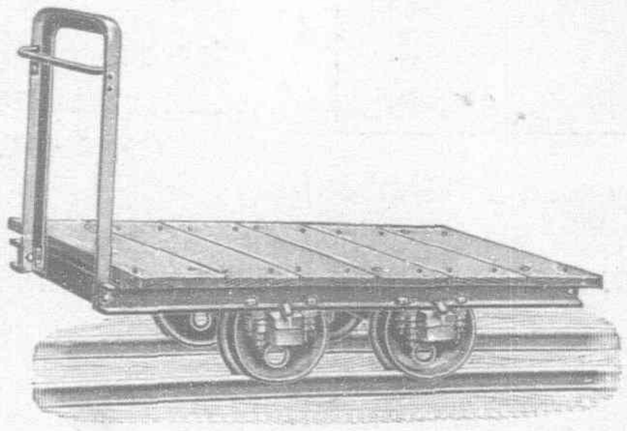


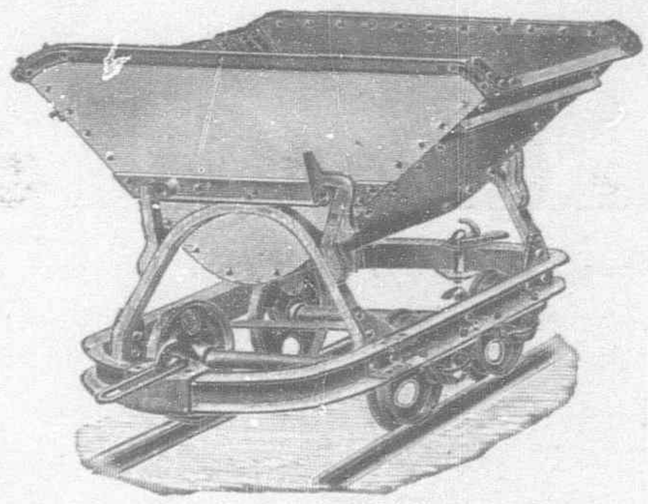
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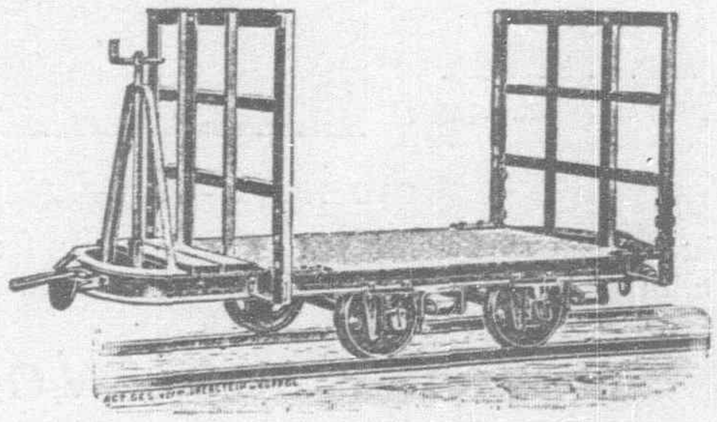
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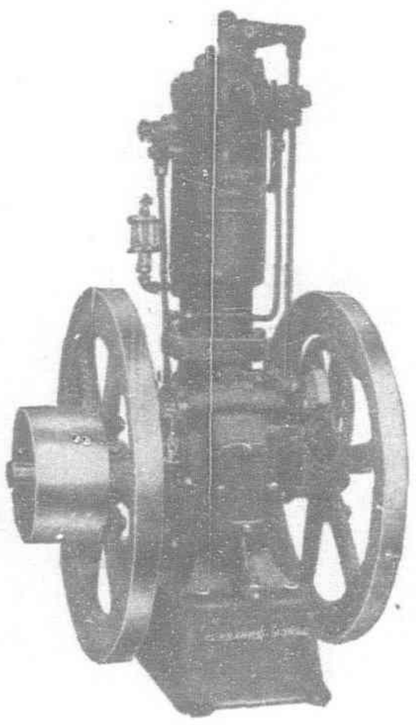


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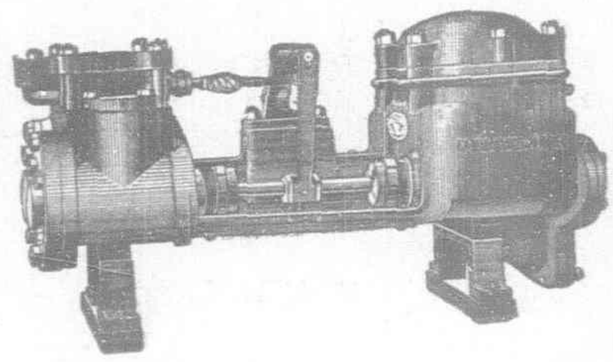






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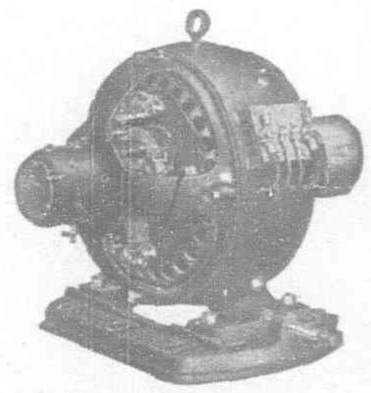
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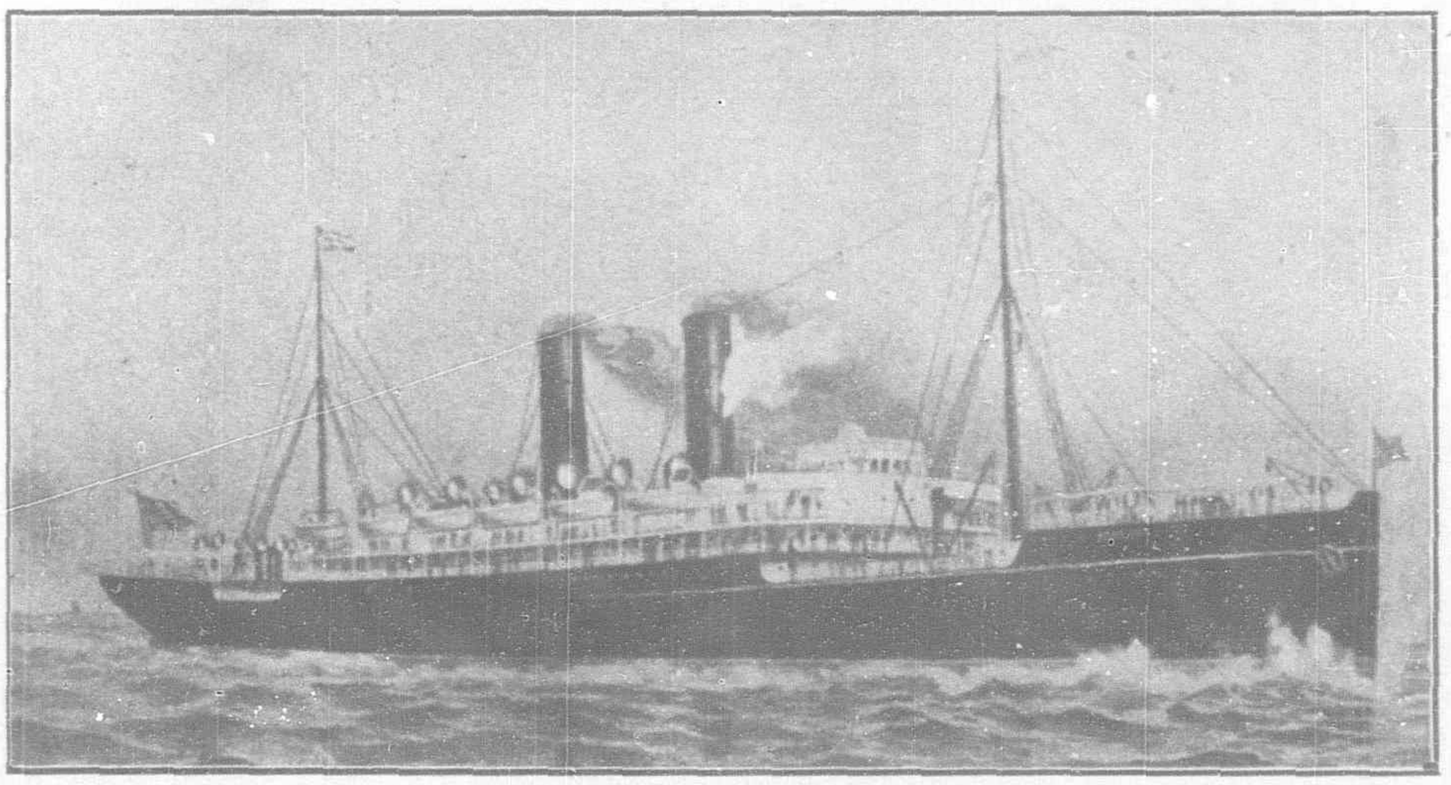
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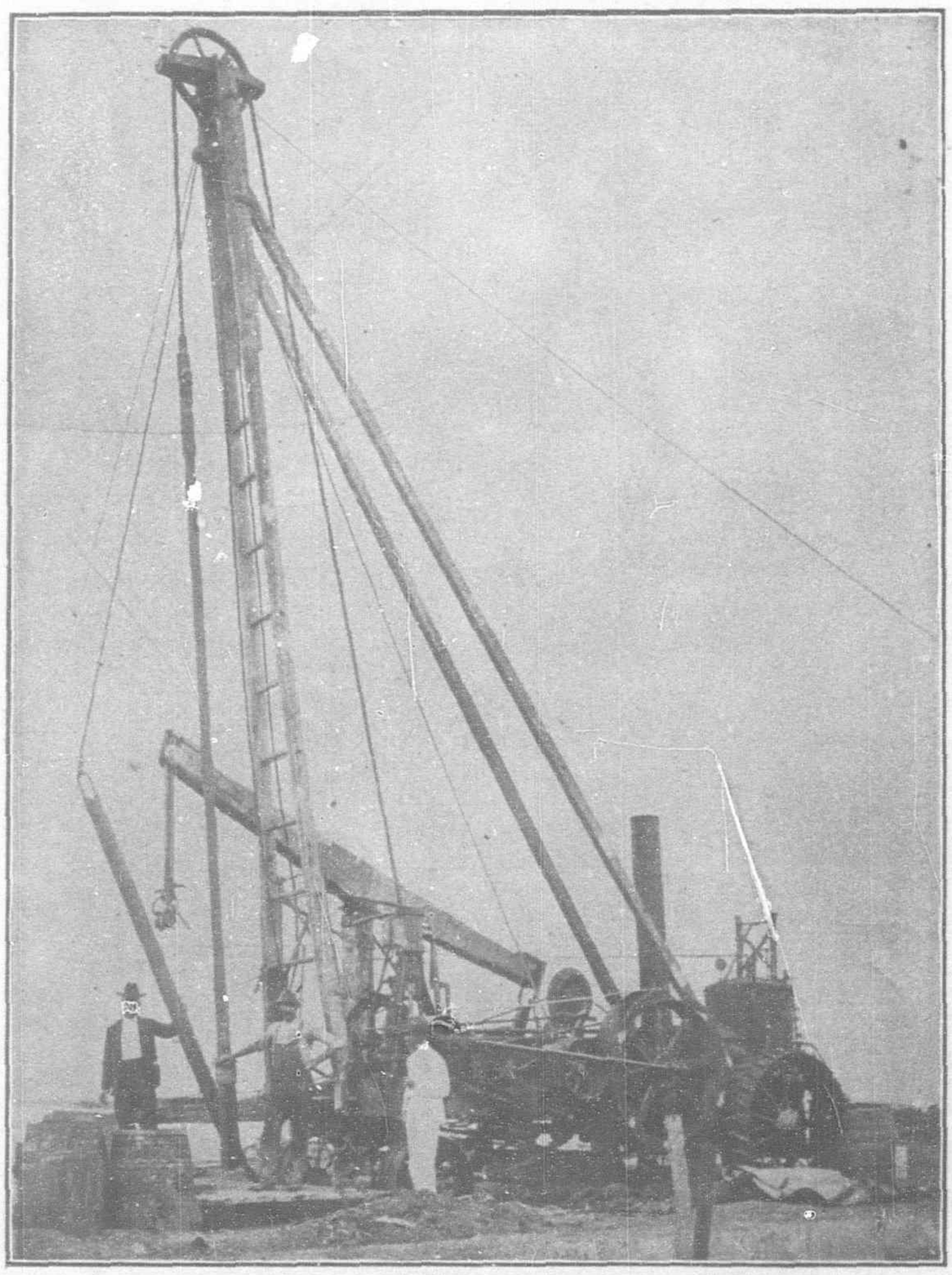
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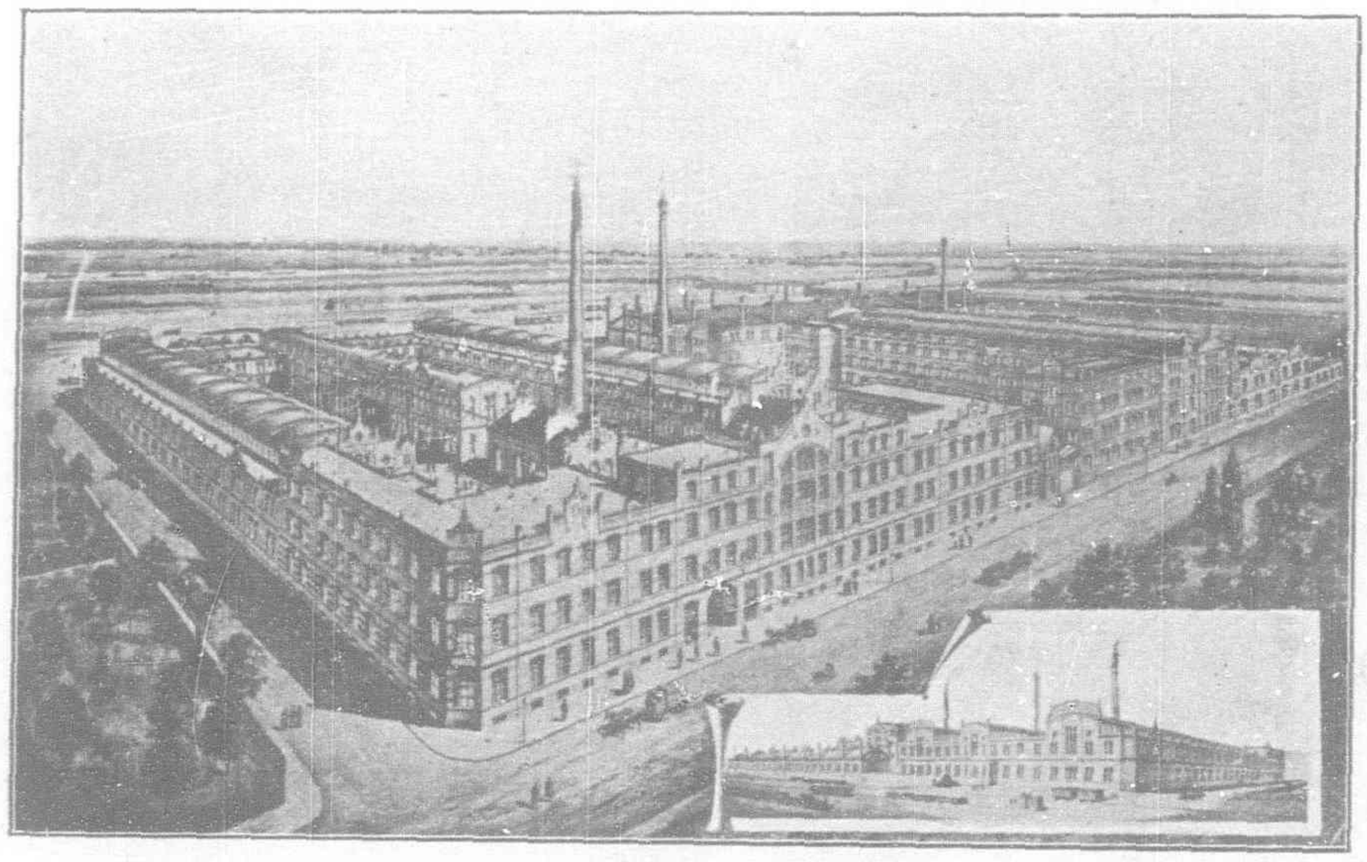
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Wells can be drilled to a depth of from 1 to 1200 ft.
Communicate with us for particulars and prices

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10,000 Workmen and Employees -:- Superficial Area: 108 Acres

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2-300 Kilowatt General Electric Dynamos (5,000 lights each) for Incandescent Lamp Lighting, complete with exciters, switch board engines, boilers, pumps, condensers, filters, piping, etc.

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Also Arc Lamps, Meters, Transformers, etc.

This plant furnished the entire lighting for the City of Manila until the recent installation of a street railway lighting and power system necessitated building a new power house.

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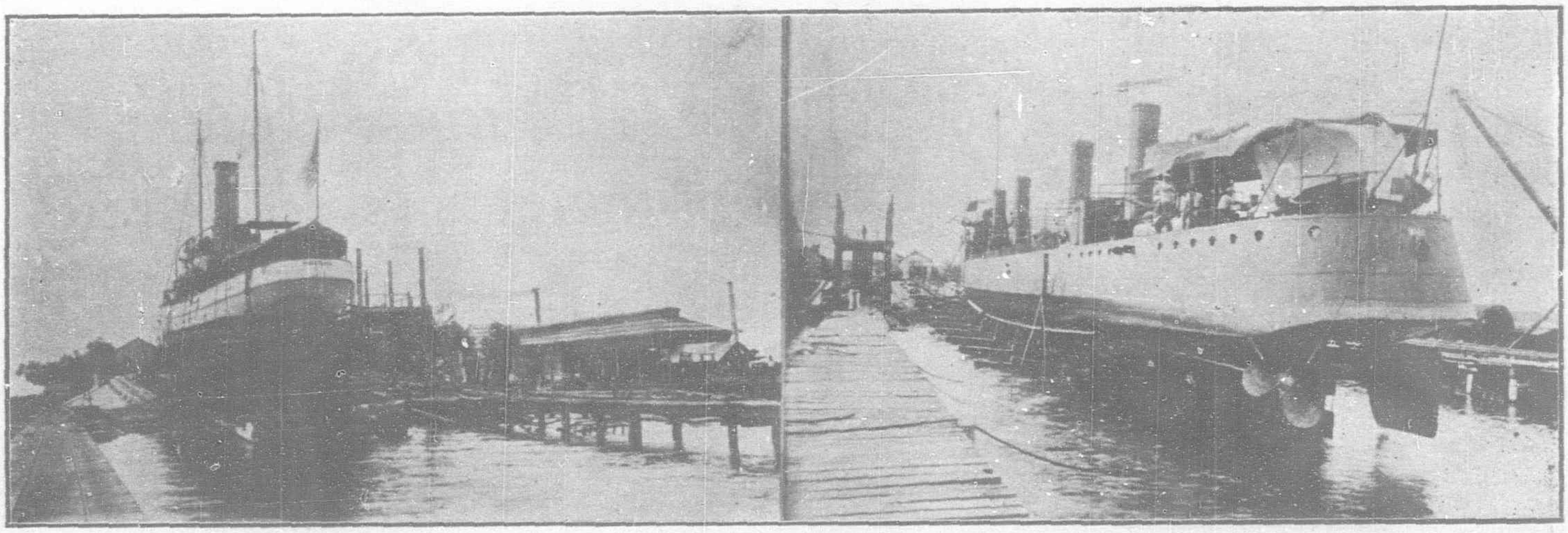
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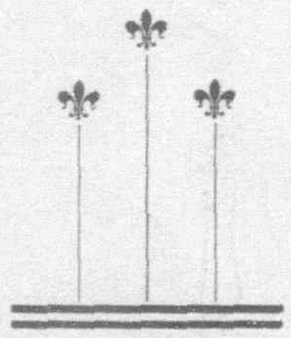
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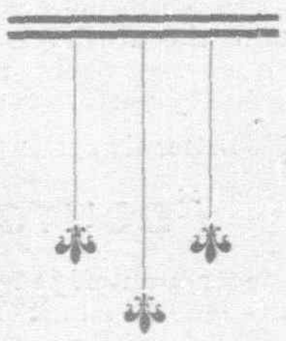
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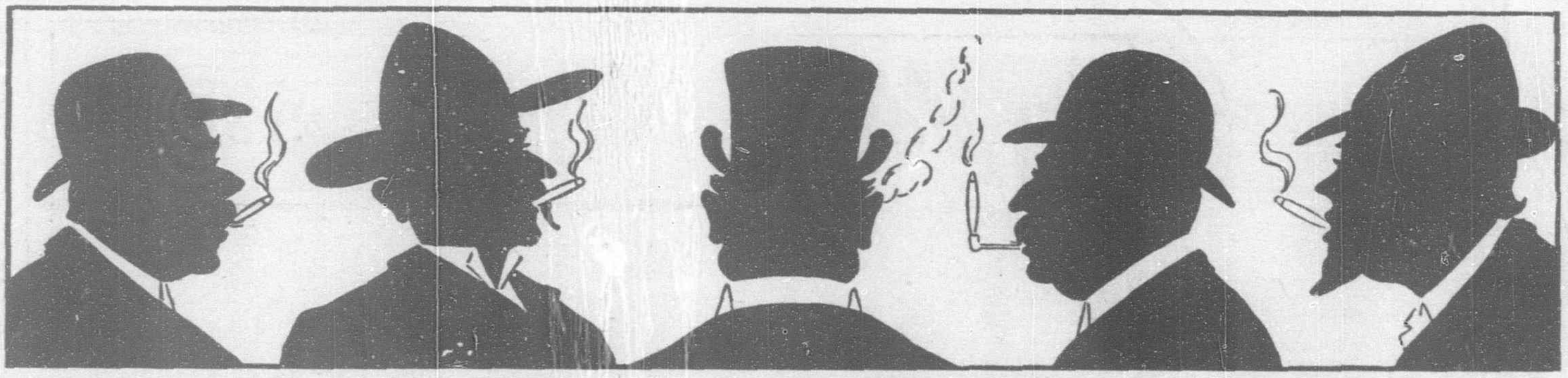
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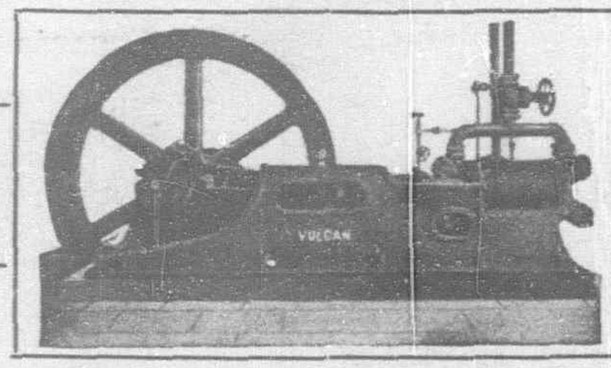
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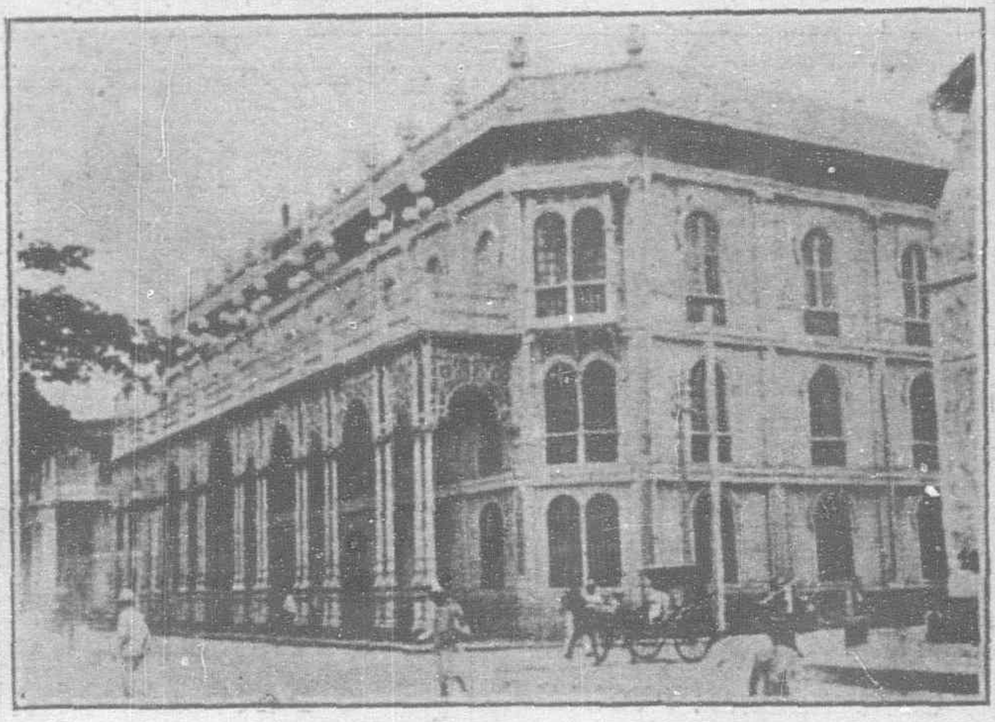
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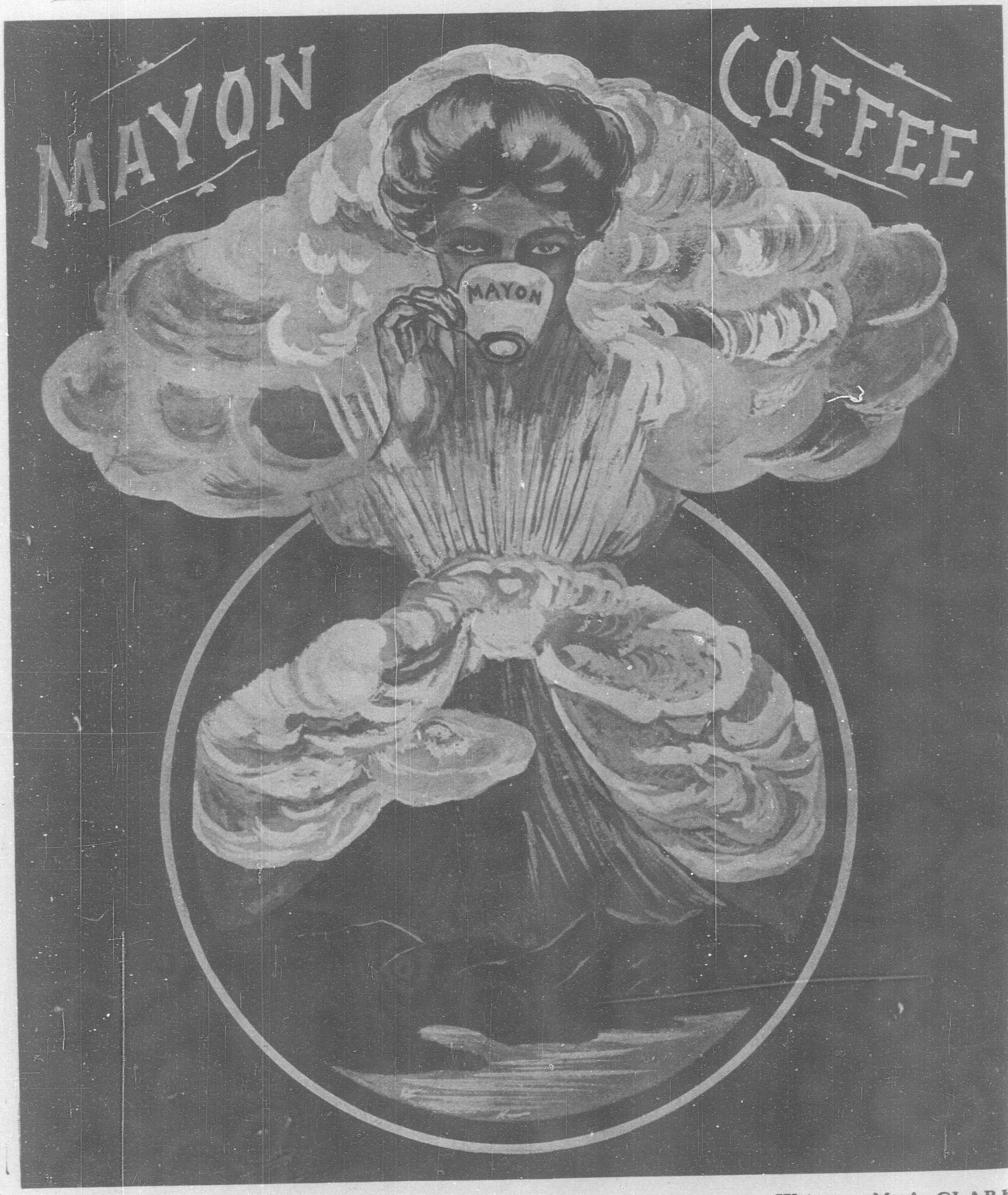
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HEADQUARTERS PHILIPPINES DIVISION, OFFICE OF CHIEF QUARTERMASTER

Manila, P. I., May 4th, 1907.

Sealed proposals, in triplicate, subject to usual conditions will be received here until 10:00 a. m., June 4th 1907, and then opened for the furnishing and delivery at Manila, P. I., of fifty two (52) Steel Trusses. Blank forms and necessary information furnished on application. Envelopes containing proposals should be endorsed "Proposals for Steel Trusses" to be opened at 10:00 a. m., June 4th, 1907, and addressed to the Chief Quartermaster, Philippines Division, Manila, P I.

PROPOSALS FOR COAL

HEADQUARTERS PHILIPPINES DIVISION, OFFICE CHIEF QUARTERMASTER

Manila, May 11th, 1907.

Sealed proposals in triplicate, subject to usual conditions, for furnishing 60,000 tons of Coal to this Department during the Fiscal Year 1908 will be received at this office until 11 a. m. May 31st, 1907, and then opened. Information and blank forms furnished on application. Envelopes containing proposals should be endorsed "Proposals for Coal" and addressed to the Chief Quartermaster, Philippines Division, Manila, P. I.

OFFICE OF THE BUREAU OF SUPPLY.

Manila, P. I., May 14th, 1907.

Sealed proposals in triplicate will be received at this office up to 11 a.m. May 31st, 1907, when they will be opened in the presence of the attending bidders, for supplying various amounts of Butts, Crowbars, Linseed Oil, Putz Pomade, Rakes, Shovels, Soap, Steel, Tar, Washers, Ink, Paper, Penholders, Prison Cloth, and Cedar Poles.

Proper forms and specifications may be had on application to this office.

E. G. SHIELDS
Purchasing Agent.

TO CONTRACTORS

OFFICE OF THE BUREAU OF PUBLIC WORKS, SANTA POTENCIANA BUILDING.

Manila, P. I., May 13, 1907.

Sealed proposals addressed to the undersigned and marked "Proposal for C. A. Set 148, Provincial High School, and C. A. Set 153, Provincial Building" will be received at this office until 11:00 A. M., June 8, 1907, for furnishing all material and doing all labor required to fully complete the erection of a Provincial High School and a Provincial Building at San Fernando, Pampanga Province, P. I., in the manner and on the conditions set forth in the form of proposal and the plans and specifications, copies of which with other information may be obtained upon application at the office of the Director of Public Works, Manila, P. I., or the District Engineer, San Fernando, Pampanga, P. I.

Bidders are requested to submit bids for each building separately and for the two buildings together.

The right is reserved to reject any or all bids or to waive any defects.

J. W. BEARDSLEY,
Director of Public Works.

FOR SALE

STERN WHEEL ENGINES

Two sets of stern wheel engines, 10″×36″ stroke. About 75 H. P. each. Complete with stern wheel shafts, bearings, reversing gear, etc.

MARINE ENGINE

One set compound non condensing marine engines 9″×18″×15″ stroke complete, and one set Davidson Surface Condenser and air circulating pump combined 5½″×6″×8″×8″. Two pressure pattern Worthington Duplex Pumps 6″×3½″×6″.

ROBERT'S WATER TUBE BOILER

One Robert's Water Tube Boiler complete with all fittings. About 30 H. P.

SCOTCH BOILER

One return tube marine boiler (Scotch type) 6′ diameter, 6′ length.

For further particulars apply to

Manila Navigation and Transportation Service

P. O. Box 288 **Manila, P. I.**

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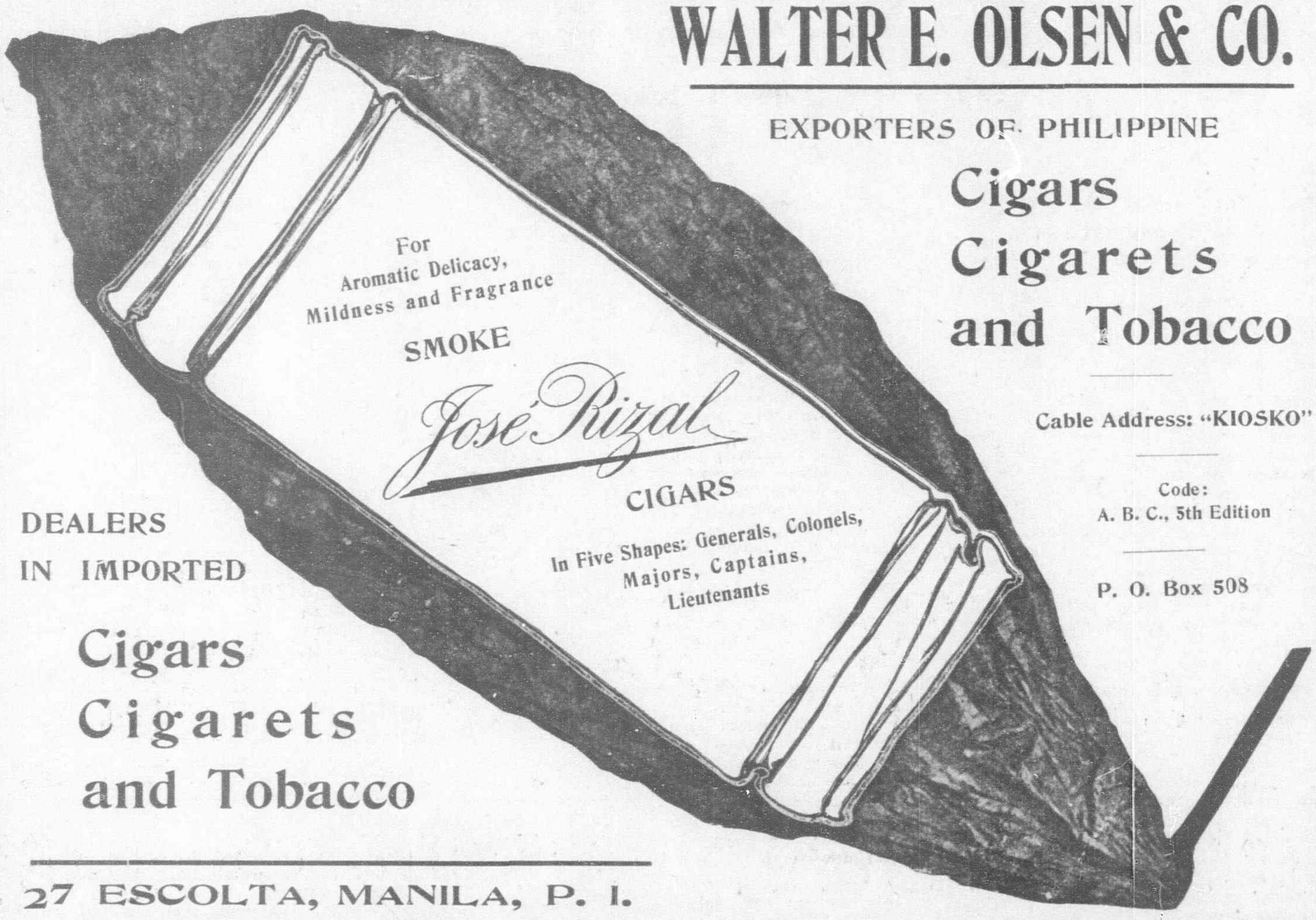
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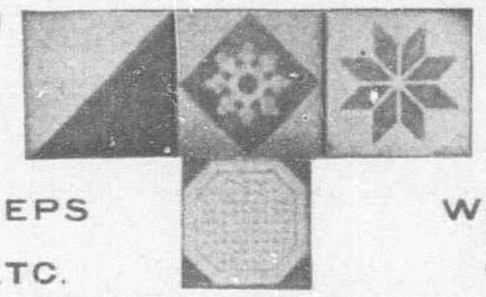
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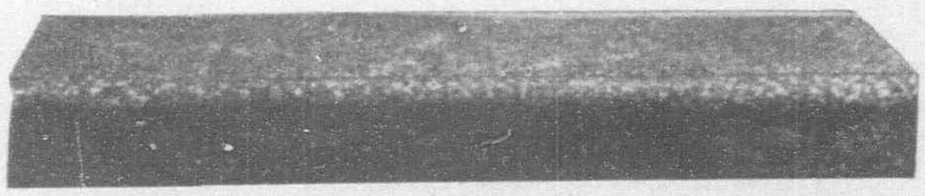
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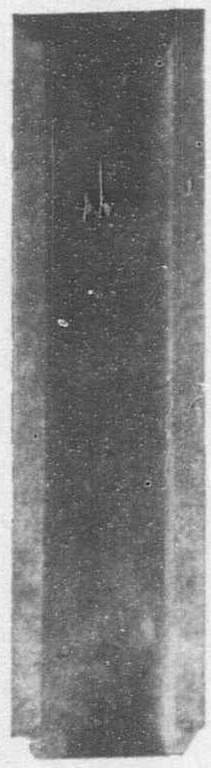
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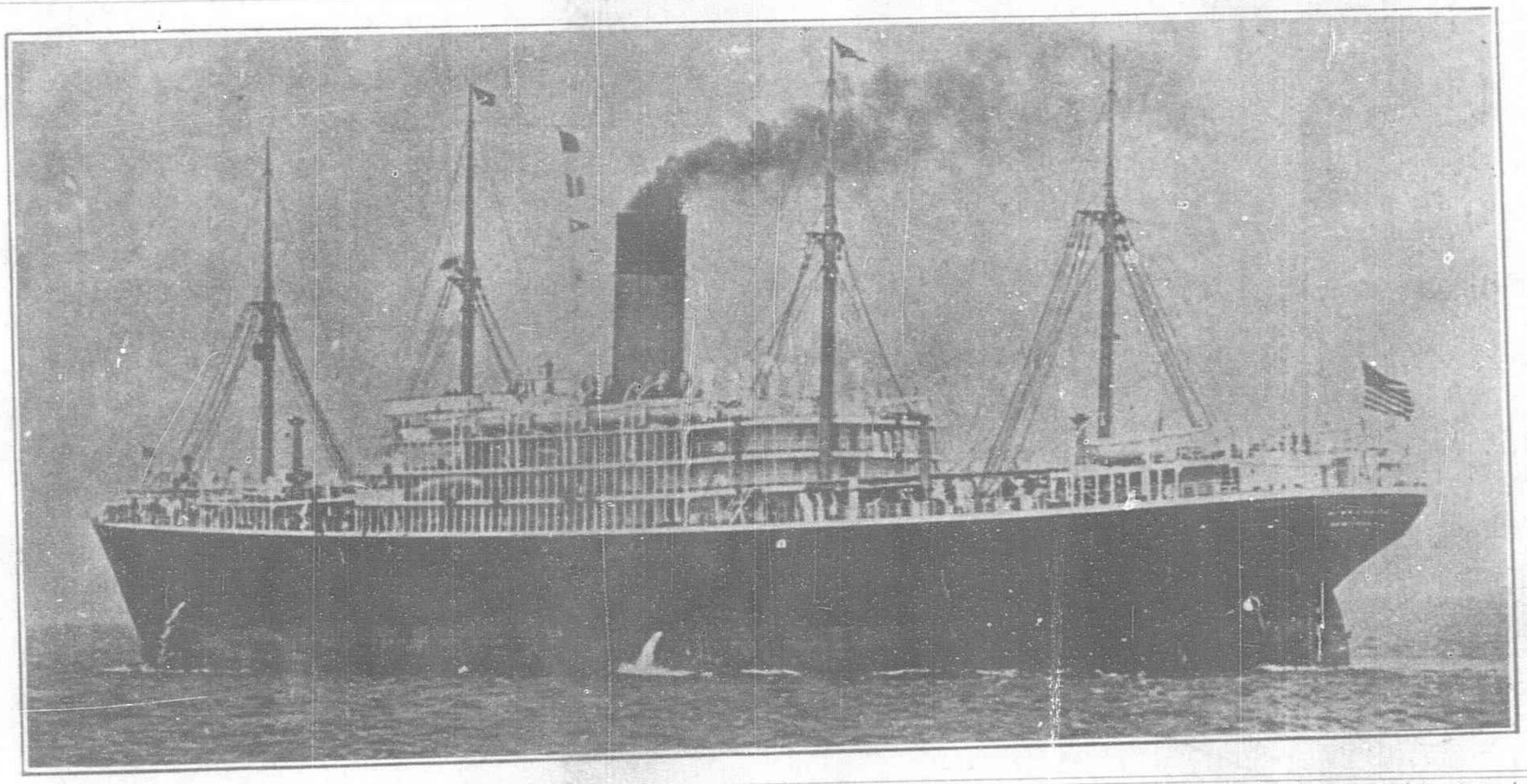


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June 21	July 6	July 10	July 15	July 17	July 22	,,	11	July 31	Aug. 3	Aug. 7	Aug. 10	Aug. 13	Aug. 26

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